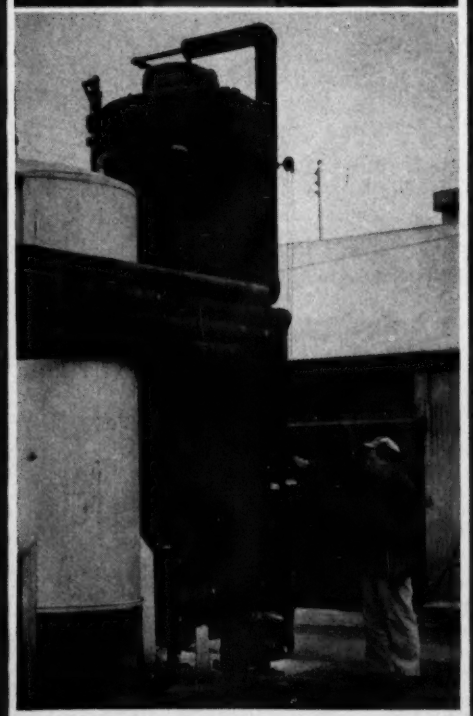
Chemical Week

November 21, 1953 Price 35 cents



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Chemical Week

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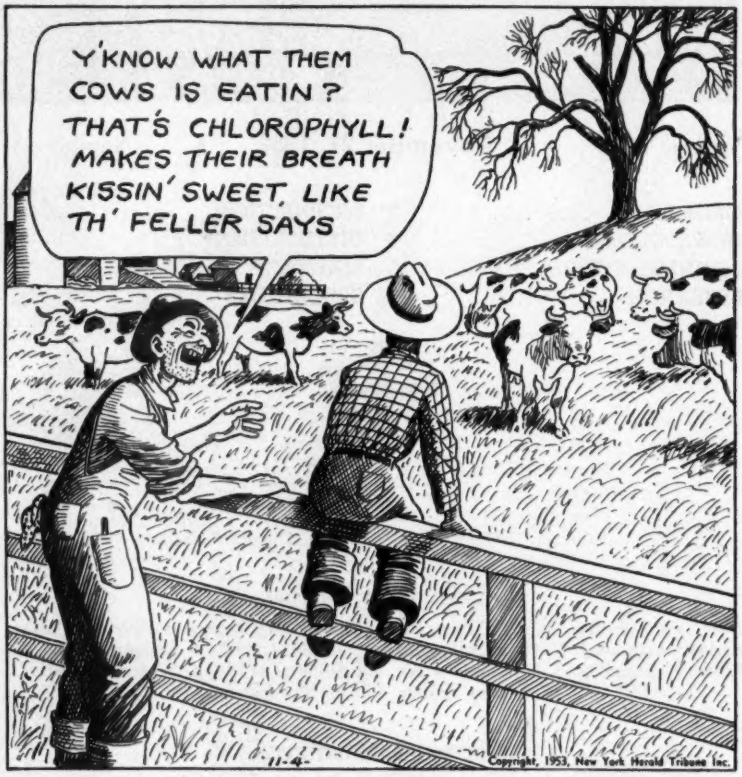
OPINION . . . . . .

The Unseen Audience : : : : : : WEBSTER—ROTH



Why Reeks the Goat?

TO THE EDITOR: . . . If you're a Republican you were probably distressed, on this post-election day, to read this morning's *New York Herald Tribune*. . . .

But if you happened to see the enclosed chlorophyll-lampooning cartoon . . . perhaps the day was not quite so dismal. . . . .

GEORGE L. MULLEN
Scarsdale, N. Y.

Sinking Ship?

TO THE EDITOR:. . . I think that you should print the views expressed in the attached note from *The Chicago Tribune*'s "Voice of the People" . . . so that all those in the chemical industry who are on the same sinking ship may read it . . .

ROBERT K. REMER
Coating Research Laboratories
St. Charles, Ill.

The Trib piece:

"How many more naive young men looking for jobs will be taken in by that enchanting word 'trainee'?

"While attending a meeting the other evening with a sizable group of men in their thirties and forties, we made an amazing discovery: we're all on the same sinking ship. We're part of that huge army of so-called future executives who are being overworked and underpaid, and who are, for the convenience of their employers, being labeled as 'trainees.'

"After ten or twenty years of exhaustive preparation, and with still no evidence of progress or financial reward, we've begun to question our employers' motives.

"Could we young men be victims of good old-fashioned exploitation, which has been cleverly masked and renamed?"

Our opinion: Old-fashioned is, we think, the word. Some years ago—particularly during the depression—such

CW welcomes expressions of opinion from readers. The only requirements: that they be pertinent, as brief as possible.

Address all correspondence to: W. A. Jordan, Chemical Week, 330 W. 42nd St., New York 36, N.Y.

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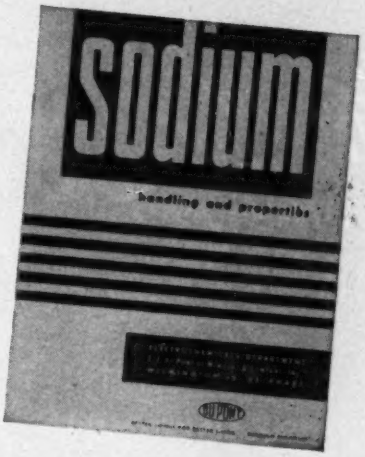

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BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

OPINION . . . . . .

trainee exploitation schemes were fairly common. We doubt, and doubt very seriously, however, that this exists to any degree today—and certainly not in the manpower-short chemical process industries.—ED.

Intrigued

TO THE EDITOR: In regard to Howard R. Garrison's letter published in your Nov. 7 issue, under the title "Psychometric Doodling", I am really intrigued by the metaphor he uses of "a virgin field pregnant . . ."; how come?

J. B. CECCON
Chief Engineer
Stauffer Chemical Co.
Chauncey, N. Y.

Cleaner Controversy

TO THE EDITOR: . . . In your Oct. 3 issue you ran a news article on paint brush cleaners and reported on an article on that subject that appeared in the October *Reader's Digest* . . . I am enclosing a copy of a letter written by our sales manager, Mr. Alfred Higgins, to the *Digest*, which contains a number of questions that we believe should be answered . . .

I should like to advise you that our paint brush cleaner—Kwikeeze—does not contain benzol—which is a highly toxic material. This product was formulated especially for a paint brush cleaner and was not adapted from a paint remover . . .

CLEMENT K. STODDER
President
The Savogran Co.
Boston, Mass.

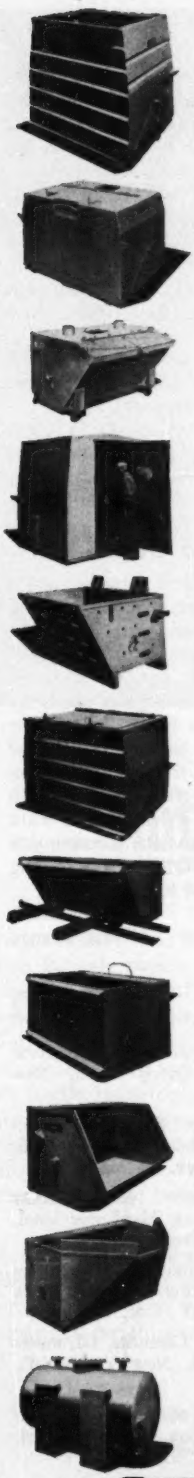
The main question Savogran's Higgins raises: Are not paint brush cleaners containing benzol—such as some of those referred to in the article he mentions—dangerous, from the standpoint of both toxicity and flammability?—ED.

Plastisol Alone

TO THE EDITOR: . . . You published this brief item (*Oct. 17*): "Mudge No More: Chemical Products Corp., East Providence, R. I. has purchased from Stoner-Mudge,, Inc., Pittsburgh, all its formulas, procedures, and some equipment for manufacturing plastisol."

Our own statement to you was carefully phrased, lest some of our customers get the wrong impression of the extent of the transaction: ("Chemical Products has purchased all formulas and procedures and certain equipment for manufacturing plastisol from Stoner-Mudge . . .")

Aside from the flippancy of the title,



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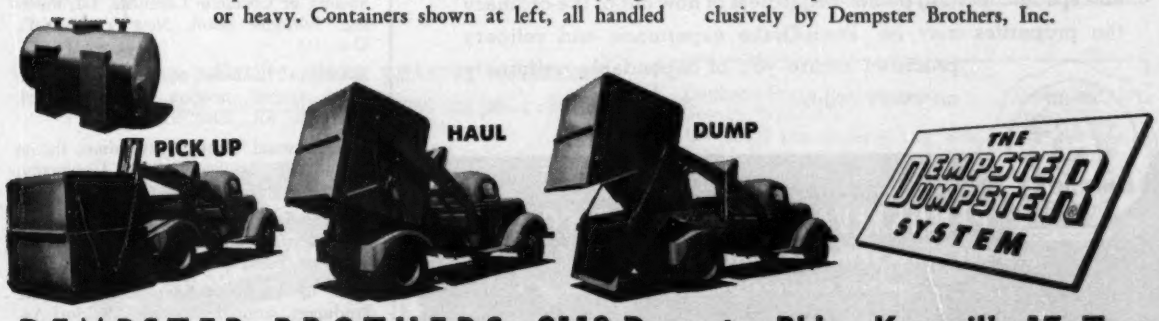

DEMPSTER BROTHERS, 2113 Dempster Bldg., Knoxville 17, Tenn.

OPINION . . . . . .

"Mudge No More", which we think has no place in an item of this sort, it infers that our company is going out of business, which is as far from fact as it is possible to get . . .

The ambiguous wording . . . could lead one to infer incorrectly that we have sold some equipment for manufacturing plastisol in addition to selling all our formulas, procedures, etc. for manufacturing items other than plastisol . . .

Consequently, we are quite displeased with the way you abridged the text of our statement . . .

D. M. GRAY
Vice-President
Stoner-Mudge, Inc.
Pittsburgh, Pa.

Where Else to Go?

TO THE EDITOR: Just now has come to my attention your report on Europe's chemical trade with the Soviet bloc ("Soviet Baits, Europe Bites," *Oct. 17*). Pray tell, in view of America's exclusion of European goods by means of its high tariffs, where else is Europe to go to find customers? You do not want trade with us, you ask us to abstain from trading with the Russian orbit. What do you want —except, perhaps, as the Communists tell us, to make Europe a weakling entirely subservient to the U.S.?

J. BROSSARD
Paris, France

DATES AHEAD

Manufacturing Chemists Assn., midyear meeting, Waldorf-Astoria hotel, New York, N.Y., Nov. 24.

Chemicals Industries Exposition, Commercial Museum and Convention Hall, Philadelphia, Pa., Nov. 30-Dec. 6.

Chemical Specialties Manufacturers Assn., annual meeting, Mayflower hotel, Washington, D.C., Dec. 6-8.

American Pharmaceutical Manufacturers Assn., midyear meeting, Waldorf-Astoria hotel, New York, N.Y., Dec. 7-9.

Society of Cosmetic Chemists, fall meeting, Biltmore hotel, New York, N.Y., Dec. 10.

American Institute of Chemical Engineers, annual meeting, Jefferson hotel, St. Louis, Mo., Dec. 13-16.

Third Annual Water Symposium, theme —pollution, Louisiana State University, Baton Rouge, La., Dec. 14-15.

Commercial Chemical Development Assn., annual open meeting, Statler hotel, New York, N.Y., Jan. 19.

Assn. of American Soap and Glycerine Producers, annual meeting, Waldorf-Astoria hotel, New York, N.Y., Jan. 26-28.

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NEWSLETTER

Foreign trade is a great idea—but it's not all sweetness and light. Brazil's Finance Minister Aranha rapped American firms last week, charging at a governmental meeting that the drop in the price of Brazil's carnauba wax was due to the machinations of "four or five U. S. firms that are entirely monopolizing this business, controlling the market at will."

He contended further that this situation deserves "special attention on the part of the Brazilian government," and added that a commission of Finance Ministry technicians will check into it.

•

Another charge of monopoly was hurled last week by Monsanto's Charles Thomas. His target: government monopoly of and secrecy about atomic energy. He called for a revision of existing legislation so that industry could participate more fully in atomic development.

"If . . . we keep all of this in a government monopoly, then we will simply be emulating the Russian way of doing things, and we will probably lose trying to play their game."

Of atomic power plants: "Participation is needed by people who expect to risk money—and to make it. In competition with one another, they get the cost down to mills instead of cents per kilowatt hour."

•

Further news of atomic energy concerns the AEC's proposed explosives processing and assembling plant near Macomb, Ill. This Spoon River project, which was to have cost over $30 million to build and start up, and about $3 million a year to operate, has been canceled. AEC says that technical progress now enables existing plants to up their output, makes the proposed expansion unnecessary.

•

Significant corporate changes:

• Despite the uncertainty shrouding the government's eventual disposition of General Aniline & Film and General Dyestuffs, the two firms merged—as company officials deemed desirable (CW, Nov. 7)—to provide a better-integrated operation.

• Koppers Co. bought for cash—amount undisclosed—American Ore Reclamation Co., a Chicago firm specializing in iron sintering. The acquired corporation will be dissolved and made an integral part of Kopper's engineering and construction division.

• Look for a new firm in the natural catalyst field. Wright Gary, former president of Filtrol Corp., is setting up a new organization backed by a New York investment house. West Coast reports have it negotiating to buy out two current clay producers. Filtrol is concurrently pruning off its less profitable divisions, is developing an additional line of natural clay catalysts for oil refining and other uses.

• If American Cyanamid decides to manufacture its new acrylic fiber, the plant will likely be near Columbia, S. C. It has purchased a 1,100-acre site there for about $200,000.

• The Office of Defense Mobilization's latest tax write-off list:

• Bethlehem Steel Co., Steelton, Pa., coke and coke chemicals, $6,845,000 at 55%.

• Monsanto Chemical Co., polyvinyl butyral film, $680,000 at 50%.

• Monsanto Chemical Co., high-impact styrene molding compounds, $3,504,000 at 45%.

• Hercules Powder Co., Hopewell, Va., dissolving-grade wood pulp, $7,000,000 at 55%.

•

Now one of the largest manufacturing industries in the nation, the chemical industry is demanding that its voice be heard in the nationwide argument over tariff policy.

This is the meaning of the Manufacturing Chemists' Assn.'s newly enunciated stand (p. 13) and the Synthetic Organic Chemical Manufacturers Assn.'s quiet backing of protective-tariff groups.

Latest indication of the industry's forthrightly independent spirit: Monsanto's bolt from the National Assn. of Manufacturers, which Monsanto accuses of having a "stand on free trade" that is "detrimental to the chemical industry."

Monsanto is also scowling critically at Washington. In a 15,000-word article in the current issue of its house organ, Monsanto Magazine, Board Chairman Edgar Queeny raps foreign policies established by the Democrats and "continued under the Republicans."

•

Plastic auto bodies? Not in big volume, thinks Chrysler President L. L. Colbert. His firm won't be using them next year or the year after that. "There isn't anything that has shown up yet that indicates plastics are going to replace steel."

Chevrolet is building 10,000 plastic-bodied Corvettes, and Ford now plans to build 15,000 sports cars in 1955. "But this is not a big field for a big volume, as I see it," says Colbert.

Chevrolet's production, incidentally, isn't going ahead as fast as was hoped. Matched dies were supposed to replace bag molding at the first of the year, permitting a 1,000-a-month output. But now it appears that retooling won't be accomplished until mid-February.

•

The National Bureau of Standards is "clean." That's the gist of the report prepared for Secretary of Commerce Sinclair Weeks by a committee appointed by the National Academy of Sciences. The committee not only vindicated the Bureau's testing work, but also added an appraisal of its own of the controversial battery additive, AD-X2: it's no good.

•

"Future Petrochemical Center of the World"—reads the sign on the arterial highway leading into small (2,967 population), farm-surrounded Tuscola, Ill., site of National Petro-Chemicals' $50-million (and more to come), 400-worker plant, which was dedicated last week (see p. 26).

Only 28 short months ago the 447-acre site was part of three $500-an-acre seed-corn farms. It's part of Douglas County, whose farmland is 70% absentee-owned, and whose population declined from 17,590 in 1940 to 16,686 in the 1950 census.

The town's two weekly newspapers carried banner headlines; the gold-caparisoned high-school band turned out to greet the special trains bringing over 200 guests from New York, Chicago and Cincinnati; townspeople peered as the visitors boarded special plastic-topped buses for a plant tour. And no wonder—since, as one local newspaper editor put it, "Today there is opportunity here. That's the big story to me."

. . . The Editors

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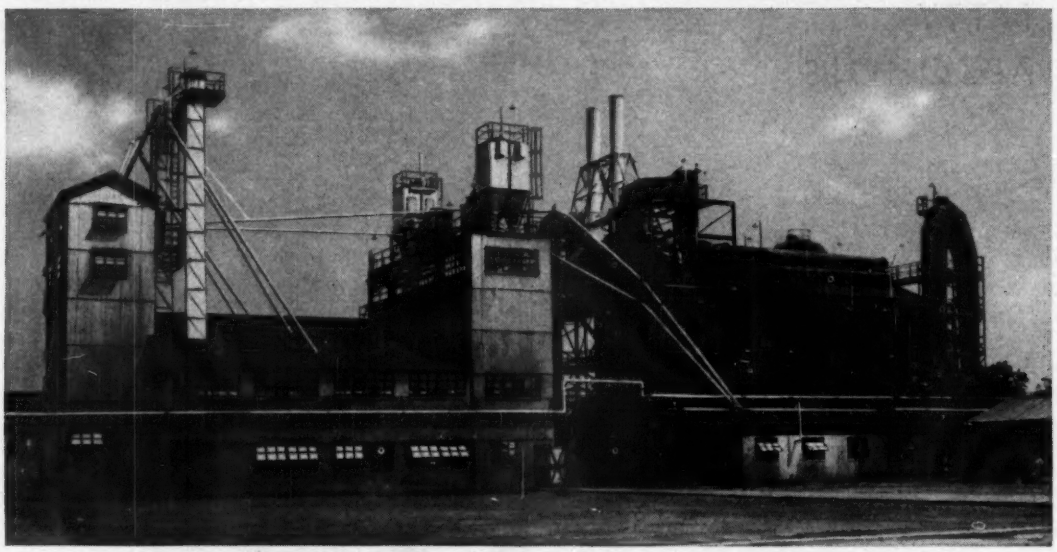

NEW INDUSTRY *for Canada*

The Furnace Carbon Black plant of Cabot Carbon of Canada Ltd. is Canada's first oil furnace carbon black plant.

The principal process equipment was designed by Cabot Engineering Company of Pampa, Texas, affiliates of Cabot Carbon of Canada, Ltd. Stone & Webster Canada Limited, with the assistance of Stone & Webster Engineering Corporation, furnished consulting services and constructed the plant.

STONE & WEBSTER ENGINEERING CORPORATION

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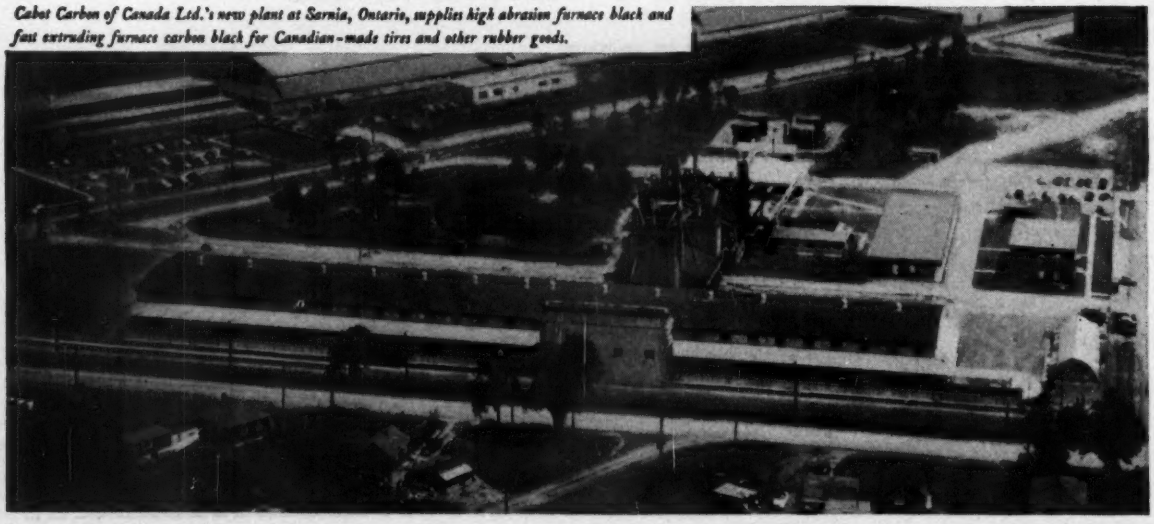
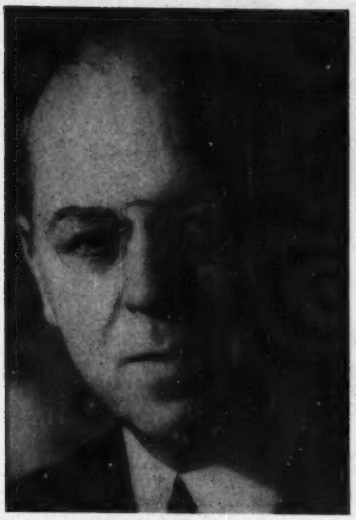
Cabot Carbon of Canada Ltd.'s new plant at Sarnia, Ontario, supplies high abrasion furnace black and fast extruding furnace carbon black for Canadian-made tires and other rubber goods.



BUSINESS & INDUSTRY . . .



MCA'S MUNSON: On tariff, his many members speak with one voice.

Trade Plus Protection

It took many heatings, quenchings, and trips to the anvil, but the Manufacturing Chemists' Assn. at length succeeded in hammering out a tariff statement that won unanimous backing from its board of directors.

This 17-page document, which lauds the mutual security and two-way trade ideals of the Eisenhower administration but also stresses MCA's firm belief that the United States needs to protect its chemical industry, is being presented this week to the Randall Commission on Foreign Economic Policy.

Drafted by MCA's trade and tariff committee, headed by Du Pont's Fred Singer, and edited by a board of directors' executive group, the statement explains why it's felt that this industry has a just claim for special treatment. Such an explanation has been made often in recent years, but the committee chose to use the version framed by no less a low-tariff advocate than former President Woodrow Wilson.

Political Prudence: "The experiences of the war," Wilson told the Congress in 1919, "have made it plain that in some cases, too great reliance on foreign supply is dangerous; and that in determining certain parts of our tariff policy, domestic considerations must be borne in mind which are political as well as economic.

"Among the industries to which special consideration should be given is that of the manufacture of dyestuffs and related chemicals. . . . It will be a policy of obvious prudence to make certain of the successful maintenance of many strong and well-equipped chemical plants."

Thus was emphasized the chemical industry's place as nerve center of the U. S. industrial system. To Wilson's postmortal testimony, MCA coupled more recent data: of the 18,245 industrial projects certified by the federal government since 1950 as "necessary in the interests of national defense," 12% are facilities for production of chemicals and allied products.

Risk of Rashness: Says MCA, in viewing the possibility that the Randall group might change the nation's present trade and tariff policies: don't make rash changes that will cause degeneration of such a nerve center.

The importance of the chemical industry to the whole U.S. economy, both in war and in peace, is the keystone of the statement.

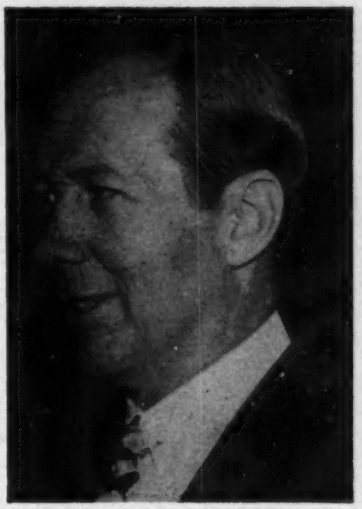
"It would be sheer folly," declares MCA, "for the U.S. to run the risk of adopting policies or practices that undermine essential domestic industry, destroy incentive to build newer and costlier plants, discourage technical research and development work, atrophy the techniques and skills of production, or dry up the reservoir of technical and managerial know-how required in this atomic age."

Tariffs Alterable: But MCA doesn't feel that existing tariff laws should remain forever immutable, believes that if there are changes in chemical tariff rates, they should be installed on the basis of individual products or product groups, rather than across-the-board.

Any general changes in trade policy, MCA cautions, must first be checked to see that they would preserve and foster an expanding U. S. economy, help solve free-world trade problems, and—if applied to specific commodity groups—be compatible with national security interests.

Too, the changes should not be based on untested theories, but upon proved, practical ideas that would provide "an adequate margin of safety" to U.S. industry.

Cartels Decried: "American industry," the statement goes on, "has thrived on legitimate competition, from both domestic and foreign producers, but the American chemical industry does not welcome, and the national economy of necessity suffers from, competition of foreign goods offered in this country at prices lower than those at which we can profitably produce, resulting from cartels, government subsidies, disproportionate wage rates and standards of living, manipulation of foreign currencies or dumping."



MCA'S FOSTER: On "trade, not aid" issue, he kept report in balance.

With his association representing producers of more than 90% of domestic chemical tonnage, Chairman Charles Munson of MCA's board of directors is highly pleased that so much unity has been achieved on such a controversial question. Part of the statement's acceptability to all directors may stem from inclusion of a sweeping endorsement of three broad principles espoused by President Eisenhower: interrelationship of the security and well-being of the U.S. and other free nations; preservation of each nation's own security; and healthy two-way trade with our Allies. In that endorsement was seen the hand of MCA Pres. William Foster, known to be an exponent of more extensive international trade.

But the primary and overriding objective of tariff policy, as MCA sees it, must be promotion of our own national security and a sound and expanding domestic economy.

Still Room for Improvement

Getting rid of public misconceptions about the chemical industry is like sorting apples out of a basket: you can't expect to find all the soft spots the first time through, but some of the more obviously bad apples can easily be discarded. Results now show that the chemical industry's session at Rensselaer Polytechnic Institute did just that last May (*CW, May 30*). Progress has been made in tossing aside many of the ugliest misconceptions, but there's still room for further enlightenment.

Polling a cross-section of the social science teachers, textbook writers and other opinion-molders who attended the Industrial Council's forum at RPI, CW discovered in a survey last week that much has been gained both in sympathy toward and understanding of the problems the chemical industry faces today. The gains show up particularly clear when contrasted with those in a similar poll taken among non-attendees. Greatest over-all difference: those who had exchanged views with chemical executives had a much clearer appreciation of what chemical companies face, expressed the desire for more of the same type of informative get-togethers.

In reply to specific questions, percentile response showed:

- Of those who attended the Rensselaer conference, 98.7% said they'd recommend the chemical industry to students as a good place to look for a job. Of those who didn't, only 91% would do so.
- RPI's guests said 83.6% of the time they'd rate opportunities in the chemical industry as above average; others pegged the chemical industry only 79.3% of the time as above other industries.
- Regarding health and safety factors in the chemical industry, CW's survey marked a wide divergence of opinion, indicating that further information on the score is sorely needed. But fewer of the attendees think that chemical plants are unhealthy or unsafe, more now consider them to be merely average risks to life and limb. The score reads: 12.9% of attenders think plants are more risky; 49.7% say they're average; 24.5% would class them as safer; 12.9% have no opinion. Of non-attenders: only 1.2% voted for unsafe; 14.9% say riskier; 40.2% fall into the average; 27.6% think they're safer.
- On the subject of wages paid to chemical workers, attenders say: 10.0%—"too low"; 0.7%, "too high"; 72.7%, "about right"; 16.7% had no opinion. That's quite a feather in the conference leaders' caps, since with non-attenders opinion breaks down into: 18.9%—"too low," 61.1%, about right; no one voting too high; and 20.0% with no opinion.
- On the acceptability of a chemical plant in their locale as compared to other industrial plants, some little educational progress was registered. RPI visitors said 47.5% of the time they considered them "very desirable"; 30.1% of the time only "fairly so"; 11.2% of the time "not so"; no difference, 5.6%; no opinion, 4.9%. Those who didn't go to Troy were exuberant over the idea 46.7% of the time; only fairly so, 23.4%; not so, 15.6%; no difference, 7.6%; no opinion, 6.7%.

"As a guest of the chemical industry last May at RPI, Troy, N.Y., I naturally feel at this time very kindly disposed toward that industry. Revealing as that experience was, however, there are still areas in which I have no basis of fact for making definitive judgments."

RPI's session seemingly did a top-flight sales job of rectifying impressions about profits in the chemical industry. While 28.6% of non-attenders think profits are too high, only 12.2% of attendees think so. Most of the converts have swung into the "about right" class; the same general pattern applies to opinions about industry profits in general.

On selling the idea of the competition that exists in the chemical industry, conference-attenders were similarly well briefed. Some 34.2% of them say they would rate competition as more than industry's at large; only 20.0% of nonattending teachers would agree. A strange switch: there was also a slight gain in the less-competition-than-average category; both caused a drop in average opinion.

Reaction concerning government regulations on chemical companies proved revealing. Apparently the conference speakers exerted no influence whatsoever on the hard core of persons supporting greater control; they did, however, entice some of the "no opinion" group over into the about the same (up 8.0%) and less-control groups (up 3.5%). Concerning industry in general, the pattern was identical—only more exaggerated.

Over 93% of both groups say they'd like to receive more information; many of those who attended the Rensselaer session made special note of their gratitude for enlightenment received there.

Policy for Super-Safety

Scarce as hen's teeth are reports of mishaps involving visitors to chemical plants; it virtually never happens. But fully aware that it *could* happen, most large chemical companies have been taking numerous precautions, a CW spot check showed this week.

One of these standard precautions, according to one specialist in the field, now should be broadened by many companies. That's the general liability insurance policy, which protects an industrial firm if a visitor falls down a stairway or leans against a boiler. In these days of high living costs, there's also an inflationary trend in the awards made by juries in accident-injury suits; and for that reason, insurance firms are recommending bigger policies for managements that want to play super-safe.

Good Reputation: Because the chemical industry has an almost unblemished record in this respect, chemical companies can buy such insurance at relatively low premium rates. But the possibility of injury is always present, and many chemical processes have great potential danger. While an average-size chemical company probably could get by nicely on a $50,000 and $100,000 policy—i.e., a maximum of $50,000 for any one individual and a maximum of $100,000 for all persons involved in any one accident—insurance agents are quick to point out that, by way of shielding against jurymen's generosity, a company can double its protection for only about 50% higher premiums.

Besides carrying up to several million dollars' worth of liability insurance covering visitors, chemical companies take numerous steps to make sure that nothing happens to their guests. One of these is to assign competent guides who are responsible for the safety of their charges. Frequently, plant guards serve as guides, but International Minerals & Chemical—whose properties include both mines and above-ground works—uses trained employees who may or may not be guards.

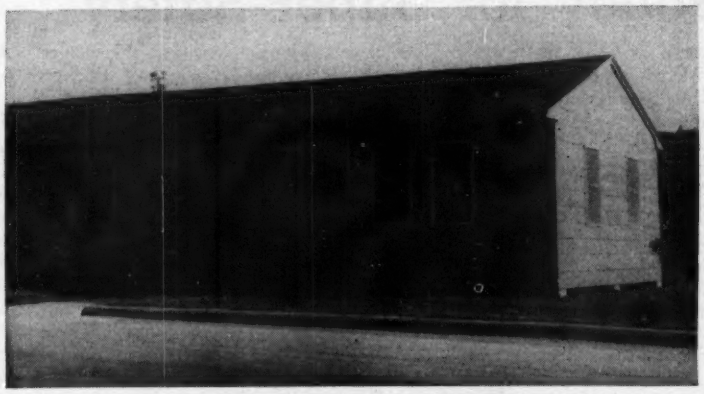
Waivers Not Liked: It used to be a general practice to have all plant visitors sign a statement to the effect that they agreed not to hold the management liable for any untoward happenings, but this custom seems to be fading out. For one thing, such waivers aren't valid in some states; and possibly more important, it's considered to be bad public relations to hint that injury is likely and that the company is callous. With odds so low on accidents to visitors, the waiver looks like more bother than it's worth.

One paint company reports that it discarded its waiver requirement 10 years ago when the legal department advised that the statements would be worthless in a real damage lawsuit. A concern specializing in emulsions and plasticizers says it uses waivers only in two plants, which happen to be in communities where other industries have established the practice. In those two plants, the waivers are two-part forms that come in four different colors. One part is the company's record, the other part is the visitor's identification card, and the colors designate which parts of the plant may be visited.

While waivers are becoming rarer, registration of guests seems to be picking up. One chemical firm asks each visitor to sign the register in his own handwriting, listing also the date, where he's from, and whether he's calling on business or for pleasure. This might be used as circumstantial evidence in a patent dispute—the company might want to show that employees of the rival firm went through the plant prior to the alleged infringement.

Other examples of chemical company solicitude for visitors: protective clothing and plant restrictions. On these points, of course, practices vary widely, depending on the operations involved. In a specialties manufacturing plant in New Jersey, safety gear is regarded as totally unnecessary; but in a phosphate mine in Florida, guests are outfitted with hard hats, individual lights, and topcoats to guard against soiling clothing. At above-ground works, visitors interested in going everywhere get goggles, rubber overshoes, raincoats, or whatever else may be called for. In many plants, management simply refuses to admit visitors to dangerous places; for example, American Agricultural Chemicals draws the line at its sulfuric plant.

The problem of caring for guests isn't the chemical industry's biggest headache; it's only one aspect of the over-all public relations program, and usually chemical plants don't have many visitors. But in view of the good, word-of-mouth publicity that comes from satisfied visitors, contrasted to the widespread bad publicity that can come if one visitor gets hurt, it's understandable that chemical companies put considerable thought into how to shield and cherish the coddled guest.



Lunchhour Chapel at Champion

When the noon whistle blows at the Champion Paper and Fibre Mill, Houston, Tex., it signals the start of nondenominational worship services for company employees. A special chapel, built by the workers themselves, is equipped with pulpit and arm-type desks that permit both men and women chapelgoers to eat and listen simultaneously. Champion reports congregations are large, says the idea's gone over big with local ministers.

EXPANSION . . .

Titanium: Rem-Cru Titanium, Inc., is building a new office building at Midland, Pa., as a further step in its over-all expansion program. Company officials are predicting that output of finished titanium will be more than tripled by next spring.

•

Chlorine: Wyandotte Chemicals Corp. has started production at its 300-ton chlorine unit in Wyandotte, Mich. As a result of the increased capacity, Wyandotte's output of soda ash will increase 20%, chlorine will soar 75%.

•

Linseed Oil: Archer-Daniels-Midland Co. has started production at its new $2-million linseed-oil plant at Buffalo, N.Y., reported to be one of the largest Buffalo waterfront developments in recent years.

•

Sulfur: Texas International Sulphur Co. will build a plant to extract crude sulfur at San Felipe, Baja California, Mexico. It has been known for 40 years that sulfur exists in the area, but up to now no practical processing and marketing facilities have been available.

•

High Octane Gas: Pan American Refining Corp.'s new catalytic cracking unit at Texas City, Tex., has been formally dedicated. Designed to process over 300,000 bbls./day of gas oil, the added facilities stand to produce some 9,000 bbls. of high octane blending stock—to be marketed from Maine to Florida. It's the second unit in at Pan Am's Texas City site.

COMPANIES. . . .

More company incorporations:

• Yerkes Chemical Co., Inc., Winston-Salem, N.C., obtained a certificate of incorporation in North Carolina to deal in chemicals and chemical preparation. Capital stock: $100,000.

• Chemical Carriers, Inc. filed at Dover, Del., with a listed capital of 1,000 shares of common stock, no par value.

• Empire Chemical & Research Corp., also filed at Dover, no capital listed.

• Amge Chemicals, Inc., at Dover, capital stock of $12,000.

•

Stock items of interest:

• W. R. Grace & Co., trying to increase its investment in Davison Chemical Corp., is offering to purchase up to 100,000 additional shares at $40/share. At present, Grace holds 51.6% of Davison common (414,569 shares), and approximately 19% of the company's preferred stock.

• General Tire & Rubber Co. has asked stockholders to consider authorization of a new class of $35 million of preferred stock. Reason given: General's board of directors wants an immediate source of working capital to provide for plant improvements, new developments, expansion.

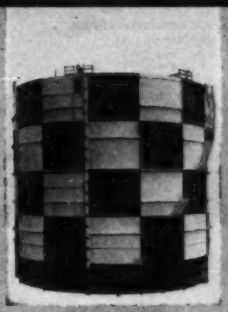
• Crown Zellerbach Corp., San Francisco, has acquired more than 96% of the stock of Canadian Western Lumber Co., Ltd., Vancouver, B. C. Terms: one share of Crown common for three of Canadian Western.

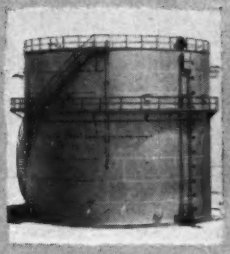
•

Illinois Farm Supply Co., has bought land near Tuscola, Ill., as the possible site of a new fertilizer plant to turn out high-analysis plant food. Engineering plans are currently under consideration; it's hoped that operation will begin by December '54.

•

American Cyanamid Co. has started the move that eventually will result in consolidation of production and administration personnel of Lederle Laboratories Div. from New York City to Pearl River, N.Y. First to migrate: sales management department, professional services department, budget and statistical department. Company officials say the move will be completed within several months, will relocate over 250 people.

users of chemical process  and industrial gases

get rid of  weather-worries and operating costs

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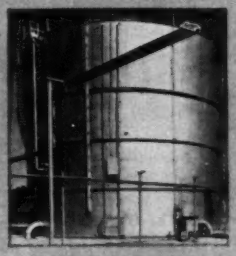

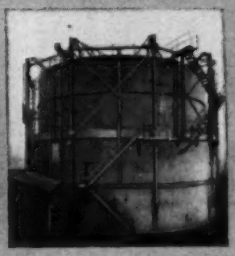

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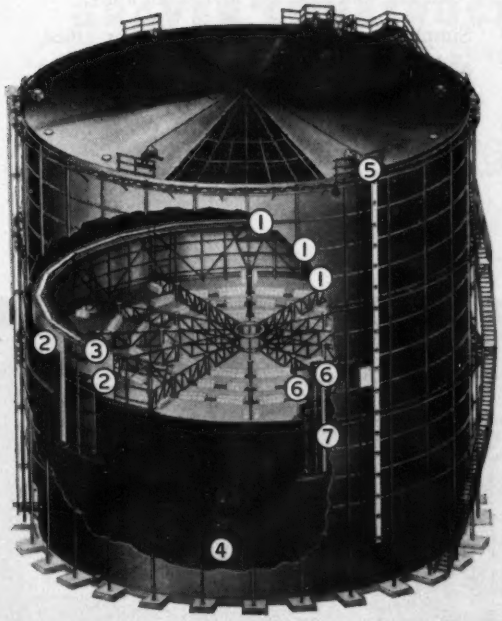

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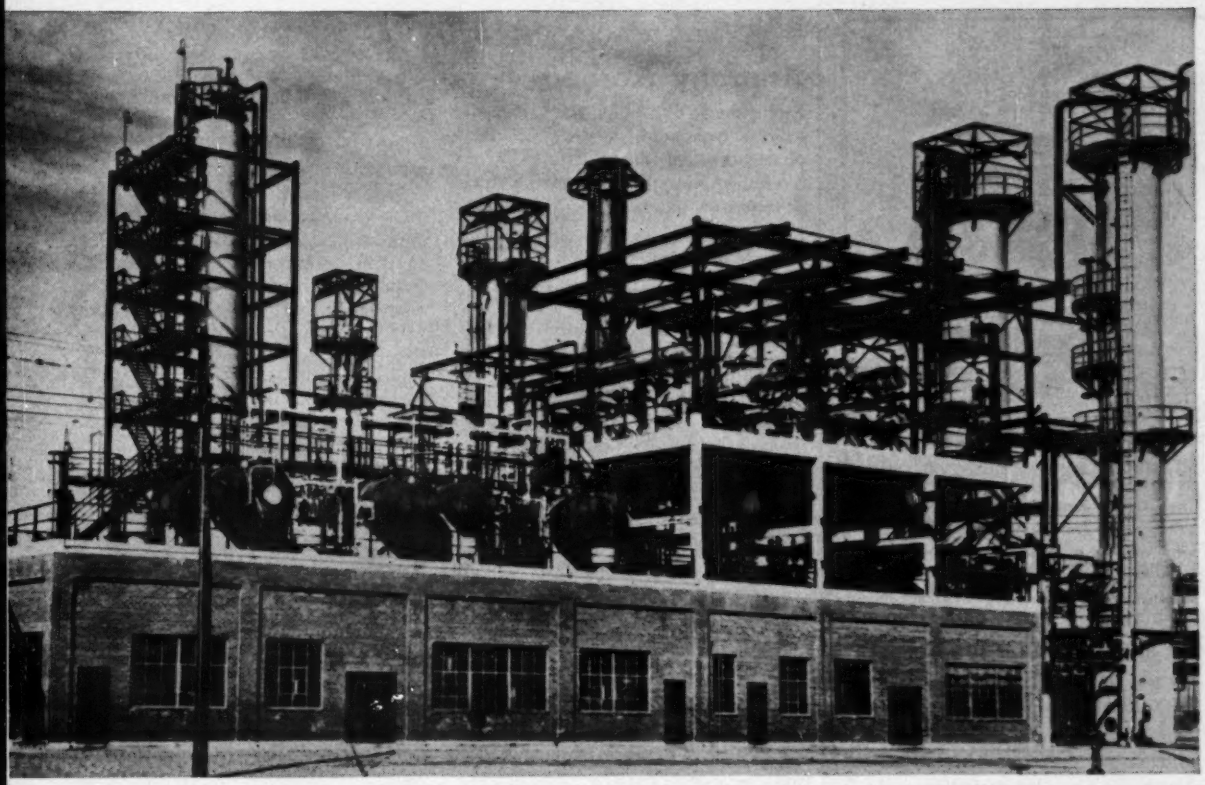

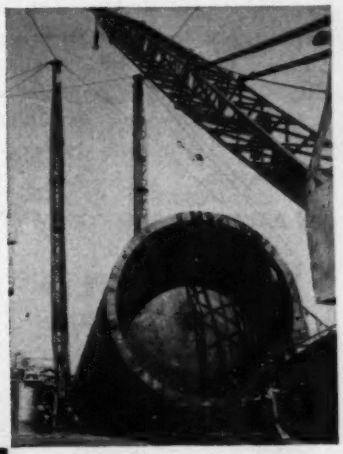

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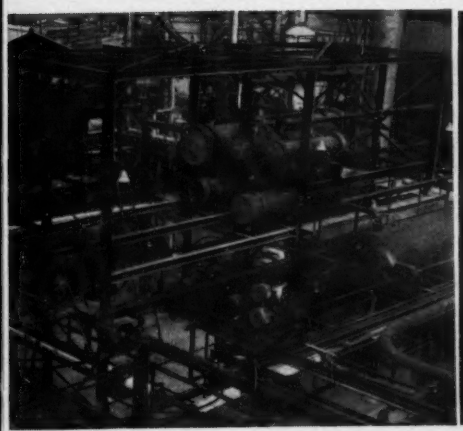


Anarchy Abroad

Embittered by what they consider callous treatment abroad, American pharmaceutical manufacturers aren't too happy these days about the world situation on patents.

Foreign inventors, it's pointed out, can get U.S. patents that give them full protection on their products and processes in this country. But overseas, it's a different story for U.S. citizens and companies. And although patent proceedings in foreign countries have been revolving chiefly around pharmaceutical products, contrasting attitudes on patent policy appear to threaten a breakdown in international patent agreements with harmful consequences for inventors of chemical and other patents.

Currently, pharmaceutical patent battles are raging in Britain, Italy and Israel, with Parke, Davis & Co. of Detroit as a leading litigant in each place. At issue: whether pharmaceutical products should be patented; how much protection should be afforded by such a patent; and the validity of the International Convention for the Protection of Industrial Property.

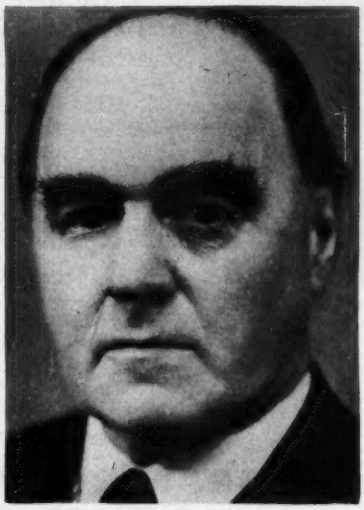
Lords May Rule: In Britain, Parliament convened last week, so the House of Lords—with the Rt. Hon. Lord Chancellor Simonds presiding—may soon set a date for a hearing on the Parke, Davis appeal from a ruling that could mean virtual confiscation of patent rights on P-D's Chloromycetin (chloramphenicol).

British Drug Houses, Ltd., started this fight by applying for a compulsory license to make that product. England's law on medicinal patents requires the Comptroller of Patents to issue a license upon anyone's application "unless it appears to him that there are sound reasons for refusing it." P-D obtained a temporary injunction restraining the Comptroller from issuing the license, but the Court of Appeals ruled the other way, and the U.S. company now has permission to appeal to the House of Lords.

Parke, Davis argues that both the International Convention and another section of British patent law provide that no compulsory license may be granted until three years from the patent's issue date. The company warns that if Britain can exclude one specific kind of product from the general agreement, then the entire Convention could be chipped away, bit by bit, to virtual nullification.

Inordinate Delays: Italy's patent policies have aroused the American Drug Manufacturers Assn. and corresponding organizations in Britain, Switzerland and France. For one thing, the law prohibits issuance of patents on medicines. Too, manufacturing processes may be patented, but such patents haven't provided much protection. And particularly agonizing to non-Italian pharmaceutical manufacturers is the clause requiring that any foreign concern holding Italian pharmaceutical patents must grant an immediate compulsory license to Italian drug makers—and at what the non-Italian firms consider "an absurdly low royalty rate."

To top off these frustrations is the way in which this unsatisfactory patent law is administered. It took the Swiss concern, Geigy Co., nearly 14 years (including 11 years of litigation) to get a patent which it applied for in 1934, leaving little more than one year of protection for the product, since Italy's 15-year protection period dates from the time of application.

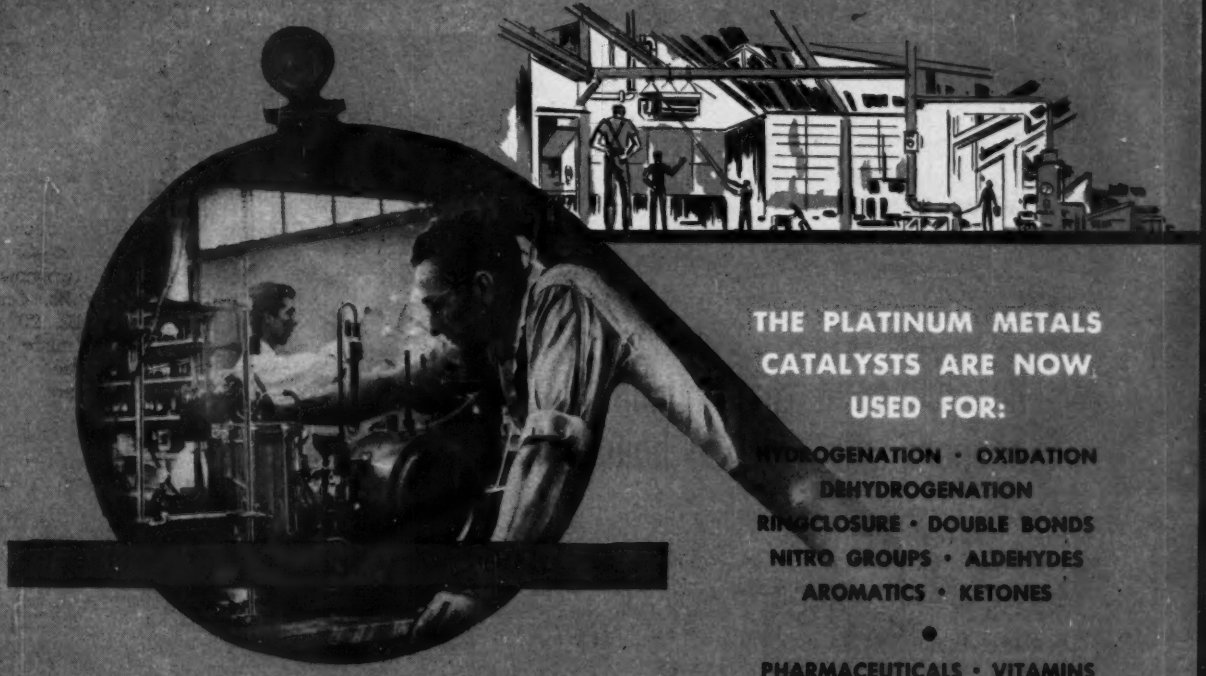


BRITAIN'S SIMONDS: He'll preside over patent hearing of world importance.

Because of what it calls "unfair competition" by Italian manufacturers taking advantage of Italian patent law, Parke, Davis has gone to court in several other countries in which domestic firms have been distributing Italian-made chloramphenicol. It won its case in Costa Rica, and gained patent recognition (through an out-of-court settlement) in a case in England; but the case in Israel is still pending before that country's supreme court.

From any standpoint, the situation looks bad. Nations that don't offer reasonable patent protection in all fields may find themselves suffering from lack of vigorous research on the

RESEARCH AND PRODUCTION



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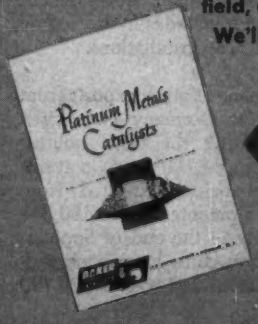

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part of industrial organizations and individual scientists. Absence of patent protection under international agreement might lead to secrecy on the part of inventors, instead of a desire to share their knowledge at fair royalty rates. And if the purpose of patent protection is to promote and encourage research, it would appear that the one field in which governments should be most eager to spur on researchers would be in the search for ever better weapons against disease.

FOREIGN . . . . .

Chlorine, Fertilizers/Venezuela: The Venezuelan Development Corp. is considering support of two new ventures in Venezuela: a Bs. 4-million chlorine plant, and a Bs. 20-million fertilizer setup. Studies made by the department of technical services indicate fertile markets for production in both cases.

•

Ammonia/Brazil: A French company, Batignolles Chatillon—says it has received an order of over 1,000 million francs to install the greater part of a new Brazilian ammonia plant to be located at Cugatao, Sao Paulo. Contracts have already been signed, work will start immediately. Other French concerns supplying aid: Air Liquide, Societe Babcock et Wilcox.

•

Fertilizer/Italy: Production is already under way at two new Italian synthetic nitrogen fertilizer plants located at Ferrara and Novara. By year's end, both are expected to be running at full capacity, will have a combined output rate of 400,000 tons/year of 20.5% nitrogen fertilizer.

•

Ammonium Phosphate/Canada: Prairie grain crops will be fed fertilizer from Consolidated Mining and Smelting Co. of Canada, Ltd.'s new $9-million plant at Kimberley, B.C., which came onstream late last month. Capacity: 190 tons/day of ammonium phosphate. The expansion is part of Cominco's $56-million development program, which includes hydroelectric and metallurgical installations.

•

Potash/Germany: Potash exports from mines in West Germany have risen noticeably during the third quarter of 1953. From 61,790 tons (in terms of potassium oxide) exported from April-June, shipments rose to 186,334 tons from July to the end of September. Production gains have been registered, too: from 264,854 to 320,790 tons.

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Everybody's Excited But the Experts

There's a stampede on today in the Beaverlodge area of Saskatchewan as prospectors feverishly compete in search of uranium. Rabid enthusiasts claim "there's a solid sheet of uranium-bearing ore from Quebec City to the Arctic Circle"; more than 1,000 sq. miles have been staked in the Beaverlodge region alone; some 50 mining company stocks have materialized on the Toronto board this year as a result of the rush. The Canadian government (only legal purchaser) is skeptical though, points out it's been looking for "commercially practical" mine sites for more than 10 years—and has only two mines in operation. A further damper: to get a pound of uranium oxide (worth $7.25) in most locations, it's necessary to dig up a quarter-ton of ore, then transport it out to processing centers. You can't discourage Canada's uranium-mad miners though; they're still pouring into the section armed with Geiger counters and forks. The land grab's on in earnest.

ACRES OF TANK CARS: B&O works a reciprocal switching deal with the IC and the C&EL . . .

Cornfields to Chemicals

Plunging in with a mighty splash last week, National Petro-Chemicals Corp.—the offspring of National Distillers Products Corp. and Panhandle Eastern Pipe Line Co.—is angling for a front-line position in the U.S. hydrocarbon race. Production capacity of synthetic ethanol alone is being clocked at 128,000 gal./day—over 30% of total U.S. production.

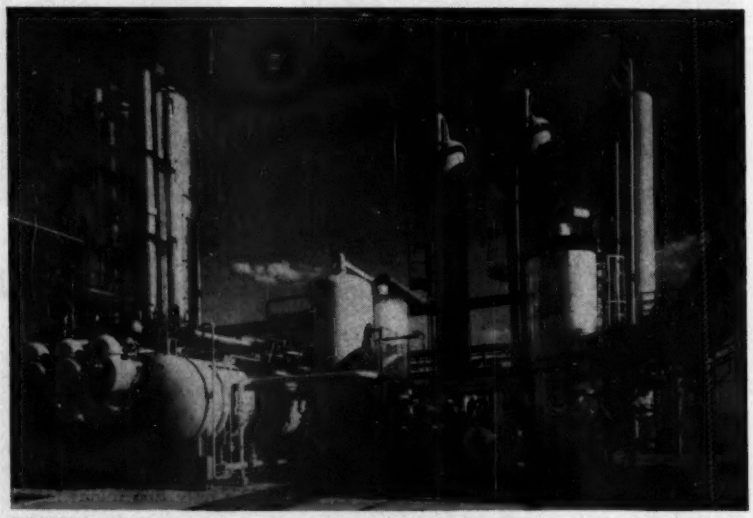
Before a backdrop of cornfields, National Petro-Chemicals unveiled its $50-million venture outside Tuscola, Ill.; Sen. Everett M. Dirksen hailed the occasion as a milestone in Illinois' economic progress; company officials promised even greater things to come.

Strictly from a chronological angle, units already in operation include:

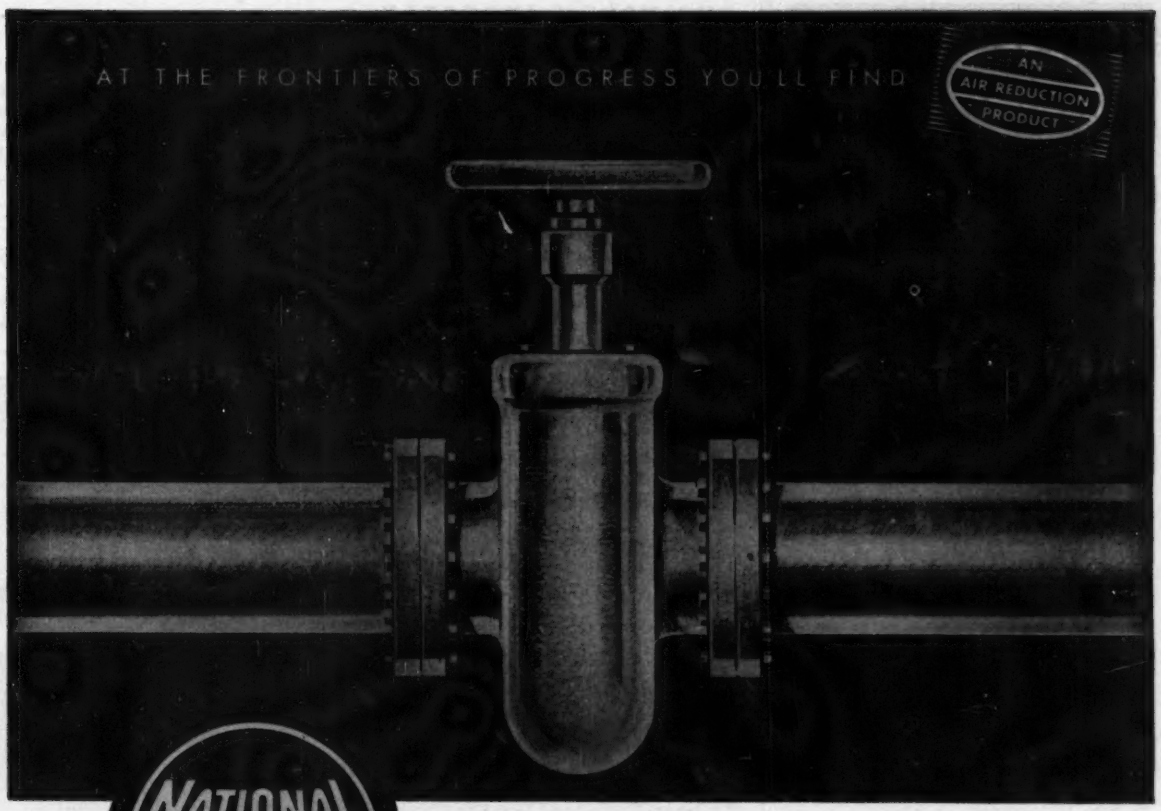
- An extraction unit set up to handle 400 million cu. ft./day of gas.
- A fractionating plant turning out daily 10 million cu. ft. of ethane, 330,000 gal. propane, 70,000 gal. butane, and 19,000 gal. gasoline.
- An ethylene unit (capacity, 300 tons/day) turning out 490,000 cu. ft. of hydrogen, 2,800 gal. light hydrocarbons, 1,300 gal. benzene.
- An alcohol plant planned to turn out 128,000 gal./day of 95% ethanol, and getting its sulfuric acid from the integrated National Distillers plant across the tracks. As a by-product: 9,500 gal. ethyl ether daily.
- Ethyl chloride facilities with a yearly capacity of 50 million lbs.

Ammonia units are yet to come, will cost an additional $7 million; polyethylene installations (with a $14-million tab) are under way, will raise U.S. production by 25 million lbs./year when completed.

Back of this Buck Rogers-like com-



FIRST STEP: Petro's extraction unit removes mixed hydrocarbons from natural gas.



NATIONAL TRADE MARK CARBIDE

high purity
PIPELINE ACETYLENE
99.5% by volume-or better!

Pipeline acetylene generated from calcium carbide can always be counted on for high uniform purity.

At National Carbide's new Calvert City, Kentucky plant, pipeline customers receive acetylene with only trace quantities of impurities. Here, in America's new chemical center, processors of acetylene-based plastics and synthetics need not be concerned with high investment costs for purification facilities, nor operational costs related to the production of acetylene.

Still other considerations point to Calvert City as the ideal location for those who use acetylene as their building block in chemical syntheses, since other sources of base chemicals, such as chlorine and hydrochloric acid, are at hand. For detailed information about quality and cost data, you are invited to write to:

NATIONAL CARBIDE

National Carbide Company

GENERAL OFFICES: 60 EAST 42ND STREET, NEW YORK 17, NEW YORK

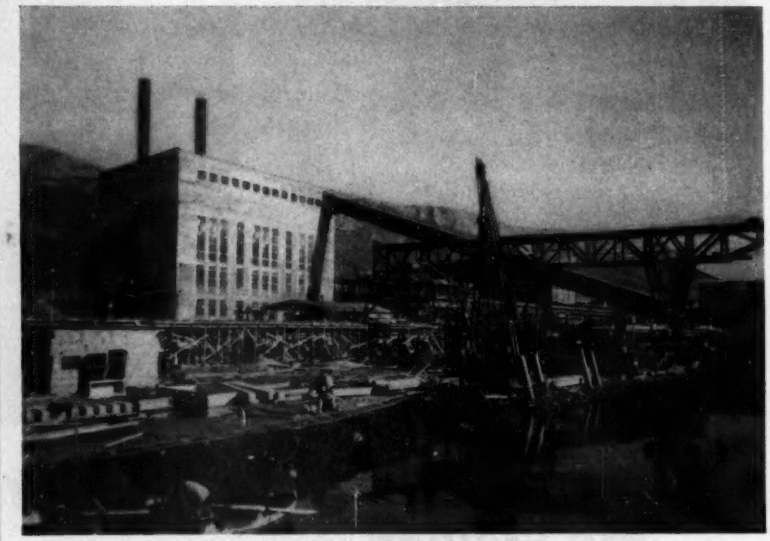
PLANTS: Louisville, Ky., Calvert City, Ky., Keokuk, Iowa, Ivanhoe, Va.

A DIVISION OF AIR REDUCTION COMPANY, INCORPORATED

munity of plants which have sprung up in the past 28 months, says President Bierwirth, lies the dream of one man—Robert Hulse, present vice-president of both National Petro-Chemicals and National Distillers. His idea—to stick to basic chemical production, aim at low sales expenses by tying up long-term contracts for National's output with major chemical producers—has sparked the growth from it's inception.

And it looks as if National has already succeeded in making itself the manufacturing arm for a dozen big producers. Phillips will buy large quantities of LPG and natural gasoline; Du Pont is bidding to buy ethanol and ethyl chloride; Commercial Solvents wants ethanol; Koppers is bidding for ether in bulk.

Labor and space are no stumbling blocks to further expansion, dedication guests were told. Though strictly a fertile farm-belt region, Douglas County has rallied round National.



PRIDE OF YUGOSLAVIA: Yugovinil's polyvinyl chloride production finds markets in West Germany, Austria, France.

Young But Active Now

In the shade of the bloody struggle over Trieste in past weeks, Yugoslavia's chemical industry is charging ahead, threatens in short order to transform a previously agricultural country into one of the most highly industrialized sectors of Europe. Disillusionment over Russia's promised, but unmaterialized, aid is largely forgotten; everybody in Yugoslavia today is concentrating on the drive to get production rolling. An abundance of natural resources adds to the punch; the heavy bargaining power afforded to President Tito by development of a well-mechanized industry is spurring official backing.

Opportunities for setting up a chemical industry in Yugoslavia—a country of 16½ million people—have always existed. The land's one of the richest in Europe in natural resources. Lignite, pyrites, bauxite are readily accessible; hydroelectric power can be developed a hundredfold. Yet it's only during the past few years that the Yugoslavs have come out of their economic cocoon. Before World War II sulfuric, hydrochloric acid, soda ash, caustic soda, calcium carbide, copper sulfate, fertilizer and soap were the only items home-produced; industry and governmental authorities openly stated a hearty disinclination to spread their wings any further.

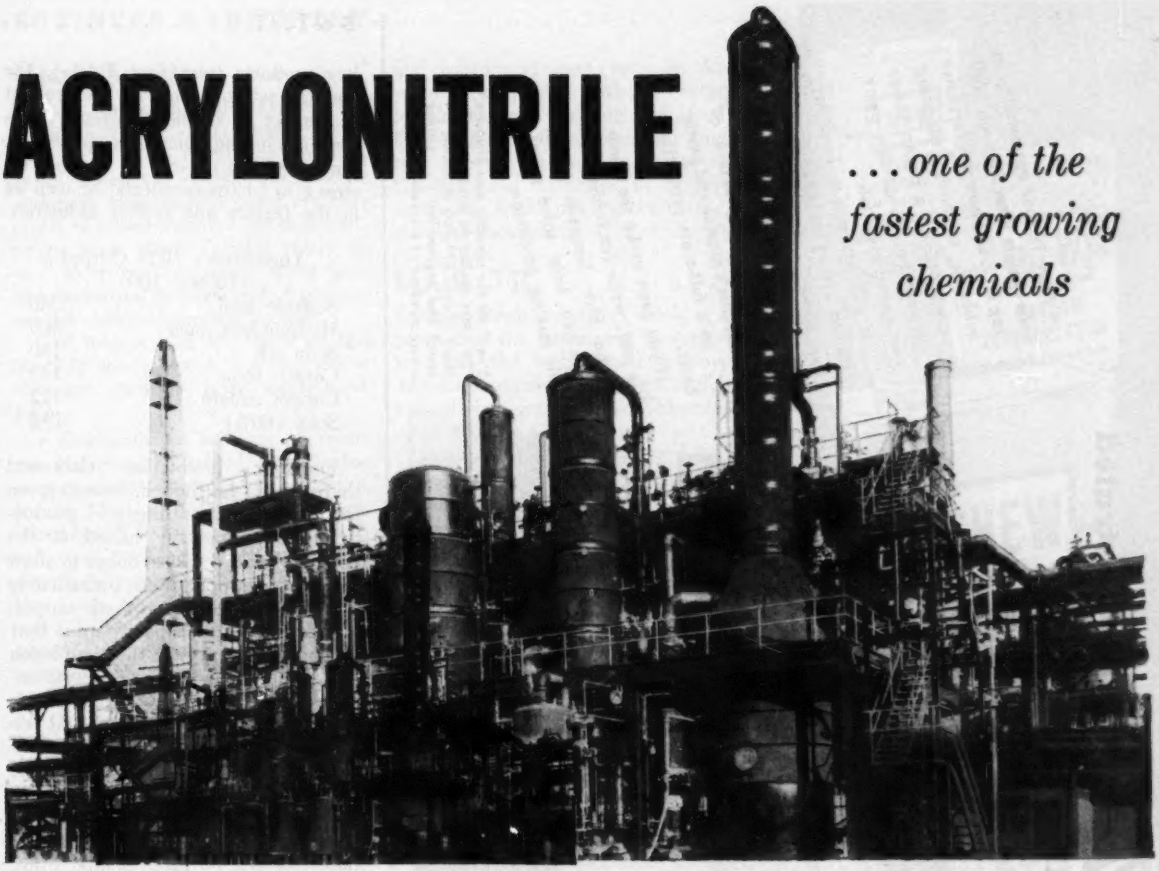
Blessing in Disguise: War damages took a hand in matters though, largely wiped out what little industry did exist. The Yugoslavs, with oral Russian encouragement, slowly started a campaign to rebuild, had almost all pre-war plants repaired by 1947.

But it was not until after the parting with Moscow in 1948 that the real break came. President Tito, forced back against the wall and facing imminent invasion, plumped for an all-out effort to overcome inertia; U.S. Government and International Bank Loans were solid boosters.

Today's roll-call of chemical activity in Yugoslavia testifies to the success of his campaign. Beside certain

ACRYLONITRILE

...one of the fastest growing chemicals



NOW AVAILABLE IN TONNAGE QUANTITIES FROM CARBIDE

CARBIDE's production facilities for this reactive monomer will help meet the demand of the plastics, rubber, synthetic fibers, and related industries.

Polymers and copolymers of acrylonitrile have these desirable properties:

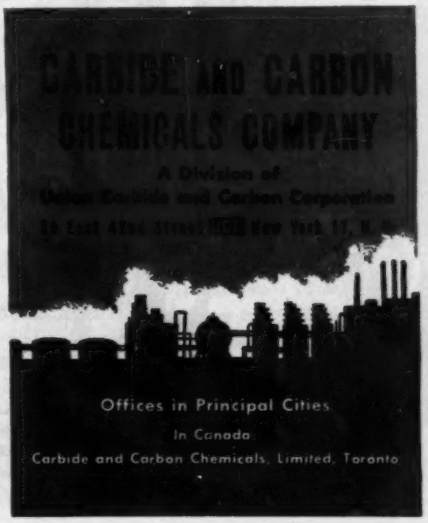
- increased resistance to sunlight and exposure
- high heat resistance
- increased flex and impact strength
- resistance to moisture, greases, solvents, and other chemicals

Acrylonitrile (*vinyl* cyanide) can be used as a source for introducing the cyanoethyl group in other organic compounds. These cyanoethylation reactions are important in the preparation of antioxidants, chemotherapeutics, dyes, emulsifying agents, solvents, and epoxide resin catalysts.

OTHER CARBIDE *VINYL* MONOMERS

Acrylonitrile is but one of a large number of *vinyl* monomers available from CARBIDE in commercial quantities. Some of these are vinyl acetate, butadiene, styrene, ethyl acrylate, crotonic acid and a large number of related compounds.

CARBIDE will be glad to assist you in evaluating acrylonitrile or one of the other reactive monomers for your particular production problem. For further information—call or write the CARBIDE office nearest you.



key products (*see chart below*), the country is now virtually self-reliant in respect to textile chemicals, plastics (including phenolic, polyvinyl, abrasives, etc.), and is coming up strong in pharmaceuticals, as well as in the leather and rubber industries.

Yugoslavia's 1952 Output
(1939 = 100)

Sulfuric acid	230
Hydrochloric acid	500
Soda ash	150
Caustic soda	140
Copper sulfate	112
Soap (60%)	182

Fertilizer production slackened sharply last year though. Reason given for the plunge: sulfuric acid production was temporarily halted at the Zorka Sulfuric Works at Sabac to allow for expansion operations, immediately reflected on superphosphate output. But Zorka's extra capacity—plus that coming on-stream with the completion of units designed to utilize sulfuric ore waste in Trepca (one of the country's largest lead-zinc mines)—should do much to rectify the situation soon.

Simultaneously, new large coal mines are opening up, coke works (now under construction) are a preliminary step to the construction of more nitrogen fertilizer plants. Using tar from gas works sprinkled throughout the country, plants to produce organic dyes, plastics, and drugs will be under way within the year.

Only serious snag in major production plans at present, admit industry spokesmen, is a nation-wide shortage of calcium cyanamide. It's explained by a former system of power distribution in Yugoslavia under which certain industrial groups enjoyed a priority rating in the supply. Calcium cyanamide producers were not listed among the privileged, but now, following the building of large hydroelectric power plants, their roadblock is removed, and production is due for a substantial boost.

Other plans for immediate future:

- A viscose plant for production of cotton- and wool-type staple fibers, rayon and cellophane. Requirements of this new industry will be covered by a cellulose and carbon disulfide plant (yet to be built). It will reduce imports of textile raw materials by several million dollars per annum.
- Acetylene production units using domestic calcium carbide as their raw material.
- Further development of polyvinyl production at Yugovinil's works at Split—already making giant strides on domestic and foreign markets.

Utah Bustle

Utah is humming with chemical activity these days. It is getting set to cash in on its natural gas supplies, easily accessible potash, phosphorus and coal. Construction plans are currently in varied stages of development, range from plants "almost ready to run" to speculative rumor about possible industrial management of governmental chemical warfare projects.

CW took a look last week at the bustling arena, found that four major chemical projects hold top-interest billing:

• Production of fertilizer at Western Phosphates' Garfield plant is due to start about Dec. 15, with "output for the first six months completely committed." The plant is equipped to turn out 90,000 tons of phosphatic chemicals annually, the bulk of it in the form of triple superphosphates and a "substantial amount" of nitrogen-phosphate fertilizer. For the nonce, ammonia will be imported, but Western Phosphates reports that two firms are currently considering building ammonia facilities in Utah to afford a completely intrastate operation.

• Of the two potential ammonia producers, Salt Lake City Chemical Co. seems furthest committed, plans a multimillion-dollar anhydrous unit to be located in the Industrial Center of Salt Lake City. Target date for plant operation: 1955. First known as Mill Creek Chemical Co., the newly formed concern is backed by Tears Engineering Co. and Henry C. Beck Co., both of Dallas, and Glore Forgan & Co., New York City.

• Utah Chemical Co. is likewise deep in the planning stages of a $23.5-million urea, ammonia, ammonium nitrate, and nitric acid setup to be located in an undisclosed site in south-central Utah. Slated to make use of natural gas now available from the Clear Creek Field, Utah Chemical is said to have already tied up long-term contracts with purchasers in the area. Further: the Office of Defense Mobilization is underwriting the deal, has granted the firm a certificate of necessity allowing a 50% write-off over five years.

• Strictly of a rumor nature are reports circulating in Salt Lake City concerning transfer of some of the work currently being handled by government employees at the Dugway Proving Grounds in the closely guarded desert region west of Utah's capital city. Most talked-of candidate for the job: Mathieson Chemical Co., Baltimore, Md. Dugway Proving Grounds is known to be the center of U.S. chemical warfare projects, may be doing some experimental work on bacteriological warfare. Adding fuel to the fire: Defense officials said in August that they were considering seeking Congressional authority to negotiate contracts with private industry to shoulder some of the work at Dugway.

LABOR. . . . . .

Long on Zeal: As of this week, it appears that the movement to organize scientific and engineering employees into labor unions is long on zeal but not on converts. These developments were noted:

• Engineers & Scientists of America had planned to hold its second annual convention next February in New York, now has decided to hold it off until April.

• The National Federation of Salaried Unions agrees with the AFL Engineers that nonunion employers are "modern feudal barons," and that professional employees should "Agitate! Organize! Educate!"

• The Conference of Professional Technical Personnel questions the existence of a shortage of engineers, and wonders whether the engineering societies should be overexerting themselves to draw more young people into this field. Would those societies, CPTP asks, do anything about it if engineers' salaries dropped below the level of teamsters' wages?

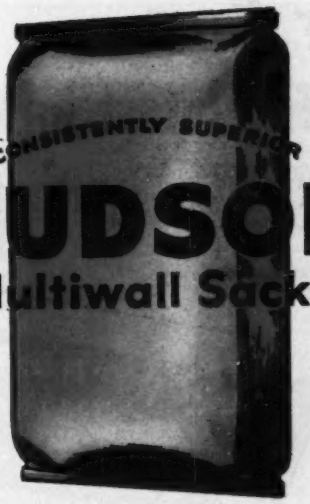
•

Calm at Koppers: Three plants of the Koppers Co. are in the labor news this week.

• At Kearny, N.J., where the approximately 850 members of Local 92, United Gas, Coke & Chemical Workers (CIO), had been on strike since Aug. 18, production resumed following union acceptance of a one-year contract proffered by the company. Terms, according to a Koppers spokesman, were virtually the same as had been offered before the strike started: a 5¢/hour general wage increase, a 2¢ rise in shift premium, two-year protection on recall, and use of plant seniority instead of departmental seniority for vacation scheduling and for reduction in force. This had been a hard fought strike with a court struggle over mass picketing. One union move: holding a "family day" on the picket lines, with some 40 wives and children joining the strikers. Gas-Coke Vice-President Joseph Joy said this strike bolstered his opinion that chemical management seems to feel that "Now is the time to take a crack at unions."

• At Garwood, N.J., Koppers and

difference



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QUALITY CONTROL
—from tree planting to sacks, Hudson is an integrated operation.

PRODUCTION UNIFORMITY
—because *all* Hudson sacks are produced on modern equipment.

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—a 39-point inspection and test program.

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—for extra display appeal and increased sales for your product.

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—Movies of your packing operation for efficiency study.

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—on delivery, storage and inventory control problems.

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—specialists to study your requirements.

HERE'S ONE EXTRA POINT FOR YOUR PACKAGING

. . . Sack Design Service by Royer & Roger, Inc., Yours exclusively from Hudson

Modern design in packaging has proved an important extra in sales appeal. To give you the benefits of product identification and recognition through modern design, Hudson has retained the services of Royer & Roger, Inc., leading industrial designers, with a staff of more than 1,000.

From their specialized experience comes the knowledge and ability to create a package that wins attention and builds sales in the competitive market. And Hudson's modern printing plant reproduces the design with fidelity, sharpness, and color brilliance.

If you want a new design by Royer & Roger for your sacks, send the coupon below today for full information — without cost or obligation, of course.

You'll find a design by Royer & Roger, faithfully reproduced in Hudson's modern sack printing plant, can be an extra point for your product — enough to make a difference.

Send the coupon today. Hudson Pulp & Paper Corp., 505 Park Avenue, New York 22, New York.

HUDSON PULP & PAPER CORP.
Dept. CW-1121, 505 Park Avenue, New York 22, N. Y.

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Name_____ **Title**_____
Company_____
Address_____
City_____ **Zone**____ **State**_____

B&I. . . . . .

Gas-Coke local 492 agreed more readily on a new contract. It provides for a 7¢ across-the-board wage increase, a 2¢ boost in shift premium, and a new escalator clause calling for a 1¢ wage rise for every .64-point increase in the cost-of-living.

• An election will be held at Koppers' Port Acres plant near Port Arthur, Tex., to determine whether about 38 employees want to be represented by the International Chemical Workers Union (AFL). That union is eager to get a foothold in the Port Arthur area.

•

Eight-Cent Settlements: Only two other wage settlements are noteworthy this week, both in the 8¢ neighborhood.

• Some 300 employees at the Basic Magnesium plant at Henderson, Nev., voted by two-to-one to accept a new contract offered by the parent companies—Stauffer, Western Electro-Chemical, and U.S. Lime. The workers, represented by various AFL unions, are to receive an 8½¢/hour wage increase retroactive to Sept. 1. Their new contract runs for 18 months, with a wage reopener next March.

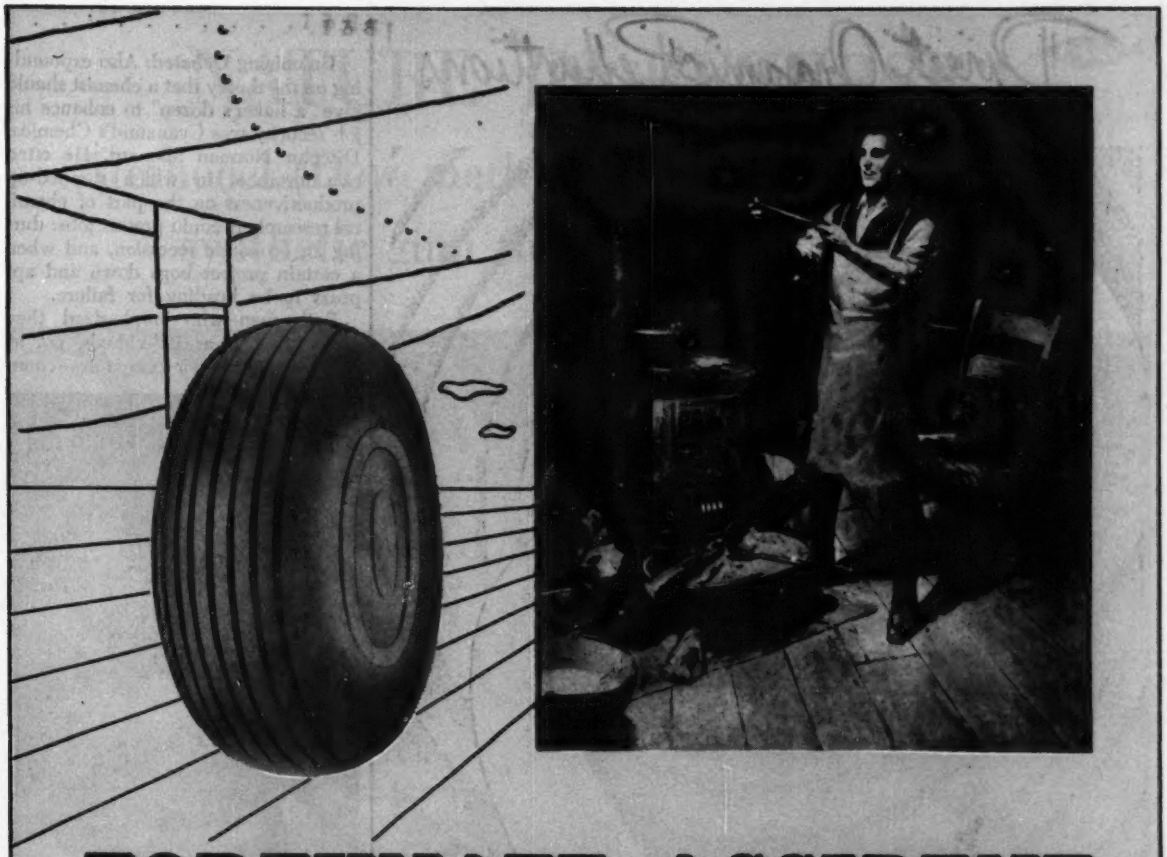
• It looks like an 8¢ wage pattern in the glass industry. That increase was the main feature of an agreement signed by officials of Corning Glass Works and the American Flint Glass Workers Union (AFL), covering 8,000 production and maintenance employees. It runs to Jan. 20, '55.

A Baker's Dozen

When the economic winds turn cold and retrenchment is in the air, an industrial chemist's best bet for shelter against the frostbite of mass layoffs is a bonfire of re-intensified activity that will convince management of his indispensability.

This was the message of two chemical executives who, starting out as scientists themselves, have now devoted nearly 40 years apiece to this industry. They were speaking at a recent meeting of the Chicago chapter of the American Institute of Chemists, at which the layoff question was roundly discussed.

"Don't be afraid of a layoff," said Victor Conquest, vice-pres. and general manager of Armour & Co.'s research division. "Get yourself on the ball and be such a good chemist you won't have to worry. You won't get ulcers, you'll do better work. And if you get in there and pitch, your outfit will expand and you'll actually create more jobs for more chemists."



FORTUNATE ACCIDENT

In 1839 rubber wasn't much use. It melted and oozed in hot weather. In cold it stiffened and cracked. To remedy these failings, Charles Goodyear worked ardently but unsuccessfully. Yet he kept on. And the final solution of the problem came by accident when onto a hot stove Goodyear spilled a mixture of latex and Sulphur. This was the birth of vulcanization.

In the years since then, Sulphur has contributed further to rubber's versatility. By varying the proportion of Sulphur in the vulcanization mix, the properties of the rubber are changed — ranging from the battery case's rigidity to the rubber band's flexibility. And when supplies of natural rubber were cut off by war, Sulphur in various forms was found to be a most important element also in the production of synthetic rubbers.

FREEPORT SULPHUR COMPANY, *oldest United States producer of crude sulphur, has been supplying this essential raw material for over 35 years.*

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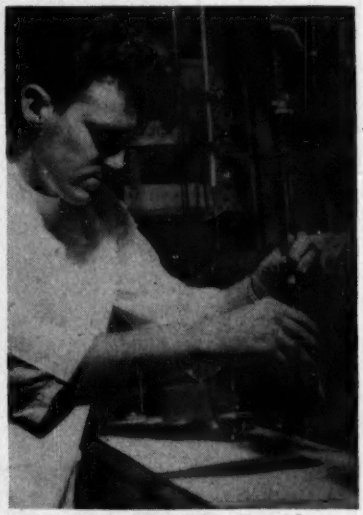
B & I . . . . . .

Unionizing Debated: Also expounding on the theory that a chemist should give "a baker's dozen" to enhance his job security was Cyanamid's Chemical Director Norman Shepard. He cited two instances in which stepped-up productiveness on the part of chemical researchers could protect jobs: during an economic recession, and when a certain project bogs down and appears to be heading for failure.

Both men—who emphasized they were speaking as individuals, not as spokesmen for their companies—counseled AIC members to steer clear of labor unions. A chemist, Shepard feels, should accept his responsibility as a part of management—not lower himself into the ranks of labor by joining a technical union. Asked about the fairness of a situation in which a chemist is fired and the lab assistant is retained because of his union's contract, Conquest replied:



RESEARCH CHEMIST: For job security, will he rely on union or gumption?

"Chemists should try to become a part of management to get their own protection. By joining a union, the chemist gives up a lot of advantages and prerogatives. He may keep his job, but he's lost his soul."

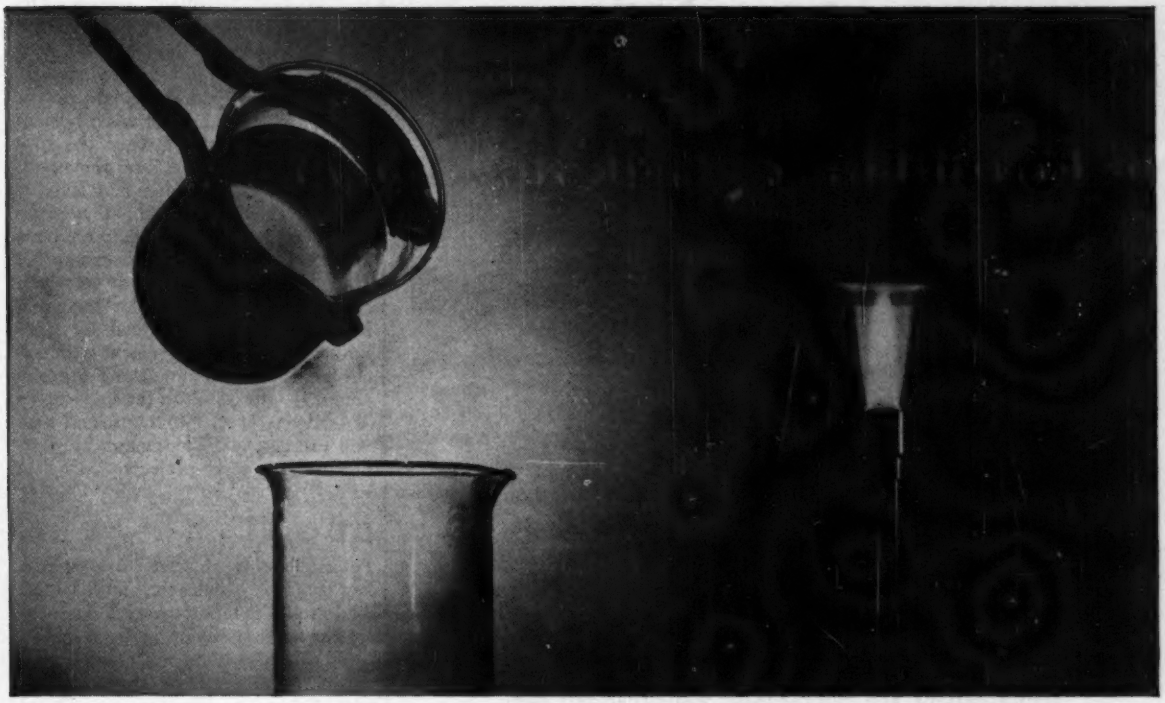
Conquest suggested that "the science of research management is still in its infancy." He predicted that more layoffs would come, adding that the chemists' employment curve "is up and down, and is basically an economic curve."

Some progress has been made, Shepard reported, in planning research activities to follow the economic curve, but at 180° out of phase. In good times, research men would work on production to improve efficiency, cut costs; and in bad times, they would bear down on research to help the

NATURE IN REVERSE

DOW

Methocel (Dow methylcellulose) is an unusual synthetic gum that gels when heated!



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The Dow Chemical Company
Dept. ME 3-28, Midland, Michigan

Wide viscosity range of Methocel is available—

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The gum that "gels when heated" is a true statement of fact about Methocel® (Dow methylcellulose) that may be extremely important to you. In the leather industry, for example, pastes made with Methocel gain maximum bonding strength with heat to save time, money, and to improve the quality of hides being processed.

Other properties of Methocel make it valuable in many different products and processes. Methocel is a synthetic gum, and its manufacture is closely controlled by Dow to give you a chemical of uniform quality. It is cold water-soluble, odorless, tasteless and inert.

Perhaps you need an economical thickener—a two to three per cent solution of high viscosity Methocel will thicken water until it will hardly pour. If you are a manufacturer of cosmetics, latexes, water paints, paint removers or textile printing pastes, you will find it especially useful.

The tough, flexible film formed by Methocel makes an ideal material for capsules, greaseproof packaging and coatings. As an emulsion stabilizer, Methocel acts as a protective colloid and minimizes the settling and caking of dispersed solids in aqueous systems.

Give a searching look at this unique material . . . it may be time well spent. For further information or a free experimental sample of Methocel, write to THE DOW CHEMICAL COMPANY, Midland, Michigan.

you can depend on DOW CHEMICALS

DOW

B & I. . . . . .

company broaden its business.

Futility Limits: In some cases it appears that there's nothing the individual chemist can do about job protection. One of these is reconversion after war, and a similar one is loss of government and other large contracts. Another is when an operation is shut down because of a strike.

Shepard favored the "mass layoff" method of force reduction, rather than the gradual "attrition" system. The mass layoff saves money immediately, and the slower method can be more painful and morale-destroying. He observed that "sub-marginal" people always are hired in times of manpower shortage, fired when the supply situation improves, and remarked: "Firing sub-marginal men may actually be doing them a good turn—they probably don't belong in the field anyhow, and might well succeed elsewhere."

One slow but certain way in which chemists can save jobs for their fellow scientists was outlined by Conquest: Infiltrate management with scientific people who understand research language, are "sold" on the importance of heavy research programs, and who will exercise good judgment on starting and stopping projects.

LEGAL. . . . . .

Potash Patent: Another tussle over a key potash patent—the late L. D. Anderson's flotation process for separating sodium chloride from potassium chloride—is on in New Mexico, with trial set for Dec. 9 in U.S. District Court at Albuquerque. Duval Sulphur & Potash Co. is defendant in this latest of three civil suits filed by Potash Co. of America, to which Anderson assigned his 1934 patent. In the first suit, PCA won a moneyless verdict last Dec. 17 from International Minerals & Chemical Corp., and has appealed to the Circuit Court. PCA's second suit, brought last summer against Southwest Potash Corp., was dismissed on a stipulation.

•

Nylon Rivalry: It was little more than a year ago that Du Pont and Imperial Chemical Industries were adjudged to be too chummy about nylon and other chemical imports and exports. But a cooler attitude came into the open at a recent hearing in U.S. District Court, New York, on current developments in carrying out the court order that ended the big ICI-Du Pont antitrust case.

When ICI attorney Mahlon Doing asked that it be established that special permission wouldn't be needed for ICI to negotiate with Du Pont for

immunity to export nylon into the U.S., Du Pont counsel Gerhard Gesell sprang up to object.

"They have gotten themselves snarled up in England in such a way that we can't get immunity to ship nylon to England, and now they are trying to invoke the other half of the decree," he complained. "That is quite unfair, and not what your honor contemplated."

Protesting that he was completely surprised at this attitude, Doing asked for time to check with ICI executives.

He had no trouble, subsequently, in getting leave for Arnold Hoffman & Co. (ICI subsidiary in the U.S.) to negotiate with Du Pont for a non-exclusive license to manufacture Caledon Brilliant Red 5-B dyestuff.

Gesell announced that Du Pont had succeeded last month in getting a favorable tax ruling from the U.S. Treasury Dept. on a modified plan for segregation of assets in foreign companies jointly owned by Du Pont and ICI. If that modified plan can be used, he explained, it will mean a $25-million saving in tax liability for Du Pont stockholders.

KEY CHANGES . . .

John S. Carlson, to director of transportation, Stauffer Chemical Co., New York City.

J. C. Crowder, to general superintendent, Southern Div., Consolidated Chemical Industries, Inc., New York City.

De Witt L. Morris, to superintendent, Garden Island Bay plant, Freeport Sulphur Co., New York City.

Alex Stewart, to vice-president, director and general manager, National Lead Co. of Ohio, Fernald, O.

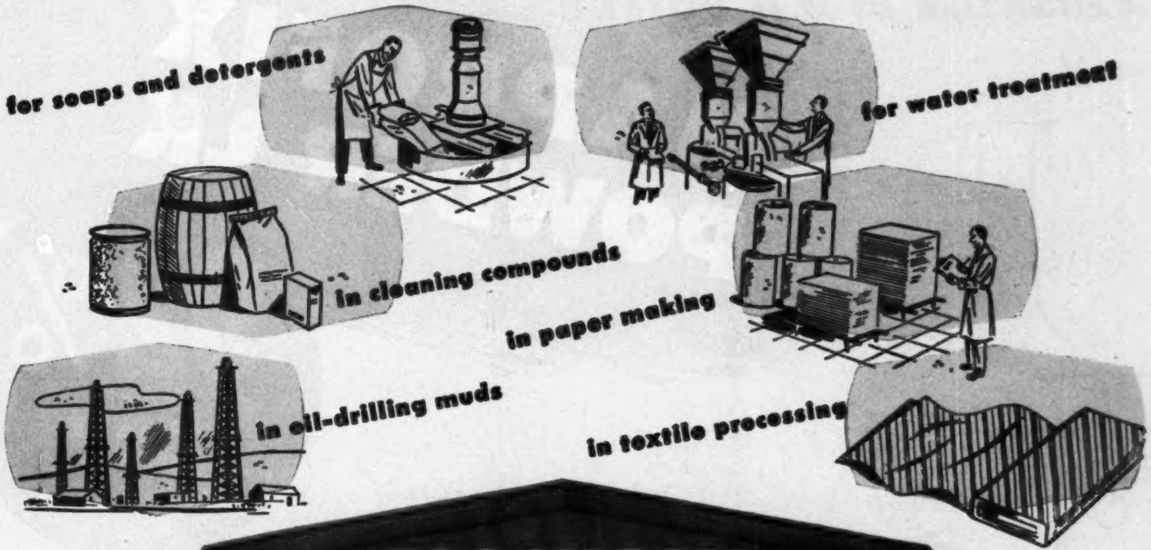
Willard J. Croxall, to the board of directors, Sumner Chemical Co., Zeeland, Mich.

Edgar L. Patch, to general manager, Armour Laboratories, Chicago, Ill.

Ross M. Sims, to superintendent, Moundsville, W. Va., plant, National Aniline Div., Allied Chemical & Dye Corp., New York City.

Stuart B. Smith, to director, Vitro Manufacturing Co., and of its subsidiary, Vitro Corp. of America, New York City.

Karl T. Molin, to general assistant to the management, Photo Products Dept., E. I. Du Pont Co., Wilmington, Del.



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Sodium Phosphates

Blockson Plant . . . Joliet, Ill.

Sodium Tripolyphosphate
Tetrasodium Pyrophosphate, Anhydrous
Sodium Polyphos (Sodium Hexametaphosphate) (Sodium Tetraphosphate)
Trisodium Phosphate, Crystalline

- Chlorinated Trisodium Phosphate
- Trisodium Phosphate, Monohydrate
- Disodium Phosphate, Anyhdrous
- Disodium Phosphate, Crystalline
- Monosodium Phosphate, Anhydrous
- Monosodium Phosphate, Monohydrate
- Sodium Acid Pyrophosphate
- Sodium Silicofluoride
- Sodium Fluoride
- Hygrade Fertilizer

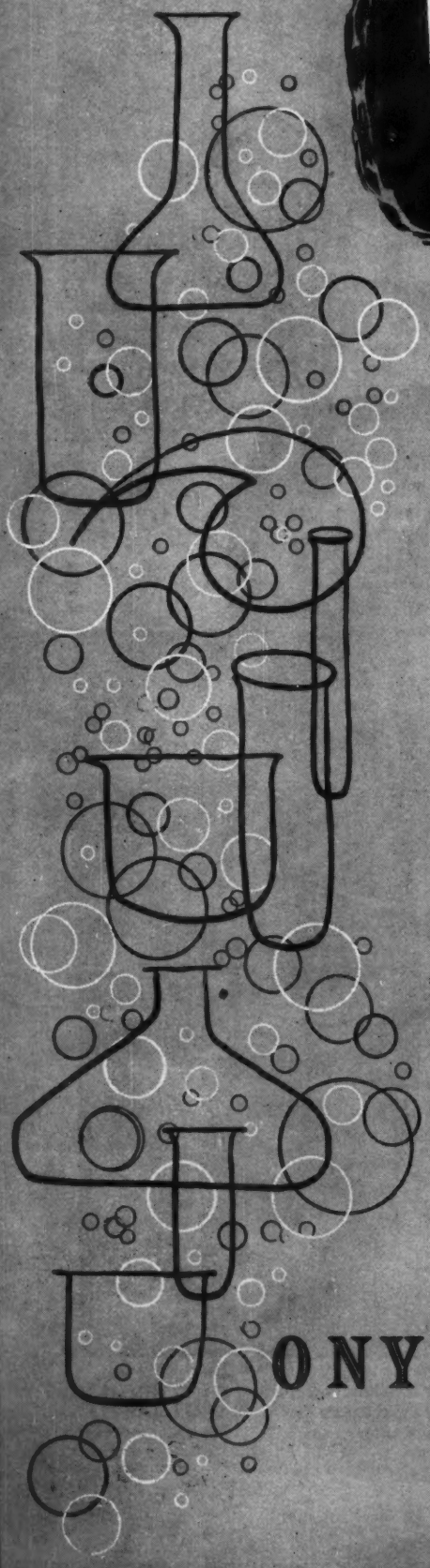
BLOCKSON

VERSATILE as it is POTENT

MAPROFIX POWDER LK

92%

ACTIVE
detergent and
foaming agent



Performing with an economy that makes it attractive for an unusually large number of diverse uses, **MAPROFIX POWDER LK** is one of the most potent synthetic detergents and foaming agents available on the market, and also offers further advantages as an effective wetting, penetrating and dispersing agent in various applications.

A highly concentrated anionic surface active agent, the 92% activity of **MAPROFIX POWDER LK** recommends it especially as a carpet cleaning, general household and industrial detergent, as well as a foaming agent for dentrifrices, shampoos and cosmetic products. Its foaming qualities are unusually good, producing exceptionally large volume with extraordinary persistency.

As a dispersing agent, **MAPROFIX POWDER LK** has proven itself excellent in paints, pigments, insecticides, fungicides and cosmetics. As a wetting and penetrating agent, **MAPROFIX POWDER LK** is highly effective over the entire pH scale, is most resistant to all types of water hardness; and as an emulsifier acts readily and permanently on many types of oils.

MAPROFIX POWDER LK is no more toxic than ordinary soap, is completely stable and readily soluble in warm water.

For concentration, effectiveness and economy, **MAPROFIX POWDER LK** is the perfect solution for innumerable manufacturing problems. A working sample, sent with complete technical data at no obligation, will prove its advantages—ask for it today.

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RESEARCH . . . .

Synthetic Banes for TB

New boost for antibiotics in the treament of tuberculosis: Ciba Pharmaceutical Products' introduction of viomycin.

Thanks to streptomycin, antibiotics have a secure niche on the shelf of anti-TB drugs. But synthetic organic chemicals stand behind the most striking advances of the past year or two, provide most of the promising candidates for new drugs.

Here's a glimpse of how the spirited search for new synthetic tuberculostats is shaping up.

Despite a rapid series of chemotherapeutic blows, tuberculosis is still on its feet and showing plenty of fight. Over the past several years the thiosemicarbazones, antibiotics, *p*-aminosalicylic acid (PAS), and isonicotinyl hydrazide (isoniazid) have made drastic inroads on the disease's dread impact. Each, in turn, buoyed hopes for eradicating TB entirely. But, mainly because of the development of acquired resistance to drugs, the tuberculosis bacterium has had little trouble escaping extermination.

Consequently, anti-TB research has shifted to meet a new challenge; the search for adjuncts and resistance-free drug combinations is on a par with the quest for effective new chemotherapeutic molecules. Newest commercial dividend of this tack is viomycin—an antibiotic that thus far, at any rate, has the TB bug guessing.

Viomycin-resistant strains just don't develop the way streptomycin-resistant strains do. According to Ciba—newest of three producers of the material—viomycin is most effective in alternating therapy with PAS, can be given even when cross-resistance has developed to other antituberculosis therapy. When the antibiotic is used in conjunction with PAS, side effects are reported to be rare and generally mild.

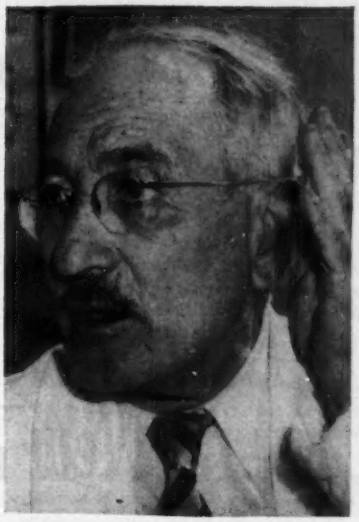
Both Chas. Pfizer and Parke, Davis have a slight head start on Ciba—they quietly released the antibiotic earlier this year. All three firms have independent claims on it, and could manufacture the antibiotic. Ciba, however, has chosen not to get its feet wet in antibiotics production. It's buying the material.

Quiet Reception: Viomycin steps through a doorway opened by Selman Waksman with his discovery of streptomycin. This latest of the TB-attacking antibiotics, however, is making no headlines in the manner of the isonicotinyl hydrazides synthesized by Hoffmann-LaRoche's H. Herbert Fox and chemists of E. R. Squibb. Of course, it isn't nearly as potent as isoniazid; but in its own way, the comparatively subdued reception accorded the antibiotic is symbolic of the current dominant position of synthetics in the anti-TB research picture.

Antibiotics, of course, loom large in the drive for better antituberculosis weapons. Yet most pharmaceutical experts go along with the belief that the infinite variety of synthetic organic configurations is a potential treasure trove of effective but unrecognized drugs. Despite many years of intensive work in this country and abroad, the lid has barely been raised. Innovations on known tuberculostatic structures alone is a monumental task—one that's keeping chemists busy in scores of industrial, academic and medical laboratories the world over.

Results are gratifying, highlight dozens of promising therapeutic chemicals. These new discoveries are sparking most hope, opening unexplored areas of study:

- A whole new class of TB fighters has been uncovered among the thiocarbanilides. On the strength of laboratory data, several members are prime candidates for therapeutic consideration. They show high activity, appear not to give rise to resistant forms, give no evidence of cross-resistance with either streptomycin or isoniazid. Worth watching: 4-ethoxy-4'-isobutoxy thiocarbanilide; and 4,4'-di-n-butoxythiocarbanilide.
- The unsurpassed tuberculostatic activity of isonicotinyl hydrazide (isoniazid) has prompted Hoffmann-La Roche chemists to explore derivatives in the hope of gaining an insight into the compound's mechanism of action. Alkyl, aralkyl, alkylidene, acyl and sugar derivatives have been prepared. Nearly all are highly active, but unfortunately no clues to the structure-activity puzzle were pinpointed.
- Surface-active agents harbor several materials of marked potency.



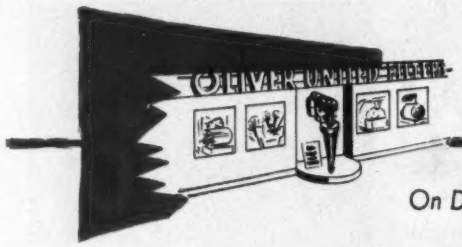
WAKSMAN: For antibiotics, an open door.

Rohm and Haas' Triton A20, for example, has demonstrated its ability to combat TB in mice. Toxicity, however, is high. To offset this drawback, researchers have synthesized A20-related *o*-methylene-bridged polymers of *p*-diisobutylphenoxypolyethoxyethanol. None is more active than A20, but some appear to be less toxic. Important sidelight: Triton A20 forms a synergistic tuberculostatic team with dihydrostreptomycin.

Also found to possess anti-TB activity is surface-active monoethyl α-methyl α-n-dodecyl succinate. Effective against local tuberculous lesions, the substance is not suitable to systemic administration. Modifications free of this failing are now being eyed.

- Thiosemicarbazones, never able to gain a foothold in American medi-

FOX: For synthetics, a dominant position.



On Display at the Chemical Show

OUTSTANDING

New Development of Interest

Oliver CENTRICLONE Cyclone-Centrifuge

The Oliver CENTRICLONE represents a unique combination of the conventional liquid cyclone and the centrifuge. But it operates so differently and produces such better results as to constitute a new, and different and better type of separator. Instead of producing high circular velocity by means of pressure through a tangential orifice, a high speed revolving impeller produces the necessary action in the CENTRICLONE with economical horsepower input.

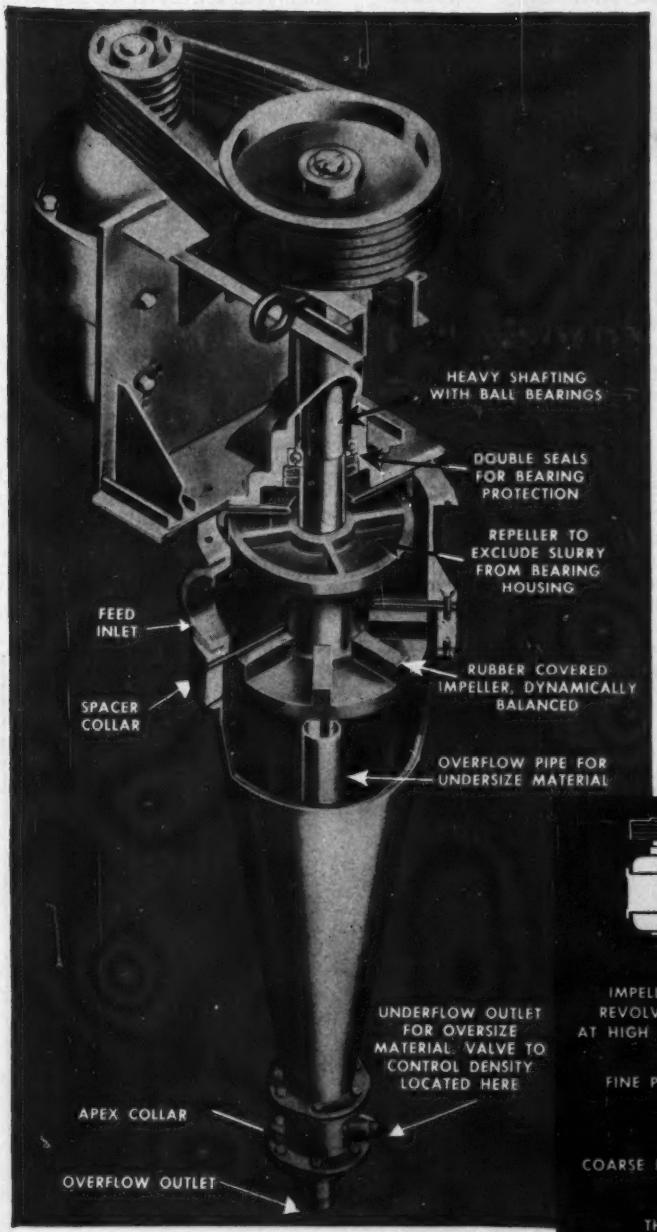
The CENTRICLONE is especially adapted to separating fine from coarse solids in liquid suspension, with size separation down to 10 microns. Separations can be effected at very high slurry densities — up to 64% solids, so far — thus avoiding dilution problems when such dilution is undesirable or costly.

The high capacity of the CENTRICLONE plus relatively small floor space requirements plus low maintenance make it an ideal machine for those requiring such a separating step in their flowsheet.

AND OF COURSE...

we shall have our customary exhibit of filter models, representing our extensive line of continuous vacuum continuous pressure and batch pressure filters. These models faithfully represent the production units. Thus you will be able to study the design features and discuss operating characteristics in relation to your filtration or clarification problem.

A large staff of experienced, competent filtration engineers will always be on hand at our booth and will be glad to help you in any way. So make Booth 513 one of your 'must' stops.



How the CENTRICLONE Operates

Feeding of Slurry

Slurry is fed by gravity, or pressure, into the feed inlet and passes over the stationary entry plate into the impeller where the required circular velocity is imparted to the slurry.

Travel of Coarse Particles

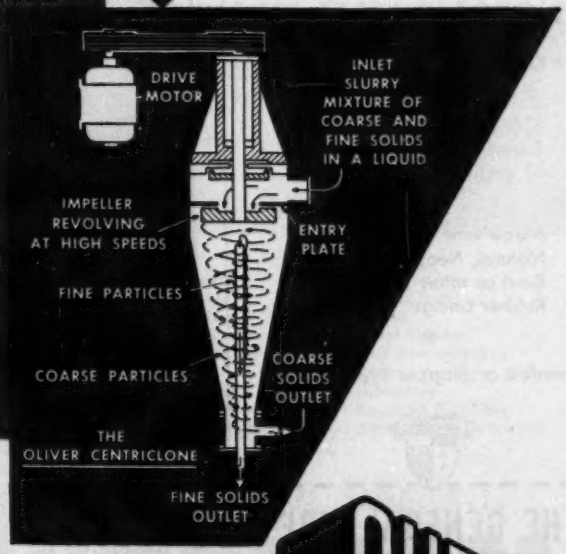
The centrifugal forces created cause the larger or higher specific gravity particles to be thrown to the outer radius of the conical retaining shell where they spiral downward to the apex collar and are discharged through the coarse solid outlet.

Travel of Fine Particles

The slimes and finer particles spiral upwards in the core and are drawn off at the center through the overflow riser pipe and pass out the fine solids outlet at the bottom of the apex.

Control of Variables

Desired results are accomplished by several controllable factors; impeller speed, time of residence, capacity, variation of overflow and underflow volume, etc. All can be varied to obtain optimum conditions.



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cal practice, are represented by two interesting new agents: *p*-ethoxy benzaldehyde thiosemicarbazone; and *p*-benzyloxybenzaldehyde thiosemicarbazone. The latter proved highly active against infections in guinea pigs; its low toxicity is equally important.

• Modifications designed to prolong retention of PAS in the blood are well worth the investigative effort. Newest fruit of this work is calcium *p*-benzamidosalicylate, said to be superior to PAS in several respects. Other PAS relatives mustered for the TB fight are two new hydroxamic derivatives: 3-bromosalicyloyl hydroxamic acid and 3-hydroxy-2-naphthoyl hydroxamic acid.

• Sulfones, forerunners of the entire breed of synthetic TB drugs, are far from exhausted. An effective adjunct to streptomycin was recently discovered in 4-amino-4'-(β-hydroxyethylamino) diphenyl sulfone. Another promising newcomer: the silver salt of 4,4'-bis-(azo-*p*-isopropyl-*m*-cresol) diphenyl sulfone.

• Pyrazine carboxamide (pyrazinamide), Lederle Laboratories' recently developed drug, highlights the anti-TB potential of diazines. Also promising: pyridazine-3-carboxamide.

Additional activity in the new drug hunt is focused on naphthoquinones, phenylhydrazines, phthalylhydrazines. As a matter of fact, it would be virtually impossible to compile a complete roster of chemical structures now under investigation. Moreover, there's never any assurance that compounds that show test-tube activity will also be active *in vivo*. And to further complicate matters, evaluation techniques vary from laboratory to laboratory; drug activity is often a reflection of test methods, interpretation of data.

But there's no uncertainty about the need for more research. Despite headline writers' zeal, the ideal TB drug is still not in sight. When it does make its bow, it may well be found to possess a multiple personality; for TB drug probers, like researchers in other medical fields, are coming to the conclusion that their microscopic enemy is best combatted by hard-hitting combinations of active agents.

Polymer Pioneer

GRIPPING the inevitable molecular model, white-haired Herman Staudinger is shown after his journey to Stockholm to accept the 1953 Nobel Prize in chemistry. The German Chemist, home again in Freiburg last week, pioneered in macromolecule studies that paved the way to the development of modern commercial polymers. Staudinger's varied work, dating back to the turn of the century, is of fundamental significance in the chemistry of ketene, starch, polyoxymethylene glycols, and alkene polymerizations.

RESEARCH. . . . . .

Marriage: Big things are expected, by General Mills, from the wedding of polyamide and epoxy resins which took place recently at the company's research laboratories. Immediate result of the bond is a new polyamide-epoxy resin that is reported to be strong, chemically resistant and relatively free of heat distortion. But a potentially prolific brood of hybrids appears to be in the offing. Possible uses for the new materials: in the manufacture of boat hulls, corrosion-resistant pipes, auto bodies, and molded furniture. They also look promising in electrical and electronic applications.

"Indications are," says General Mills, "that further experimentation will develop a . . . coating for paper and a . . . tough and durable covering for metal . . ."

•

Open for Business: There's a new research and consulting firm in the Philadelphia area. It's Robinette Research Laboratories, Inc. (Ardmore, Pa.), specializing in process development, technical and economic surveys for the textile, leather, paper and chemical industries.

•

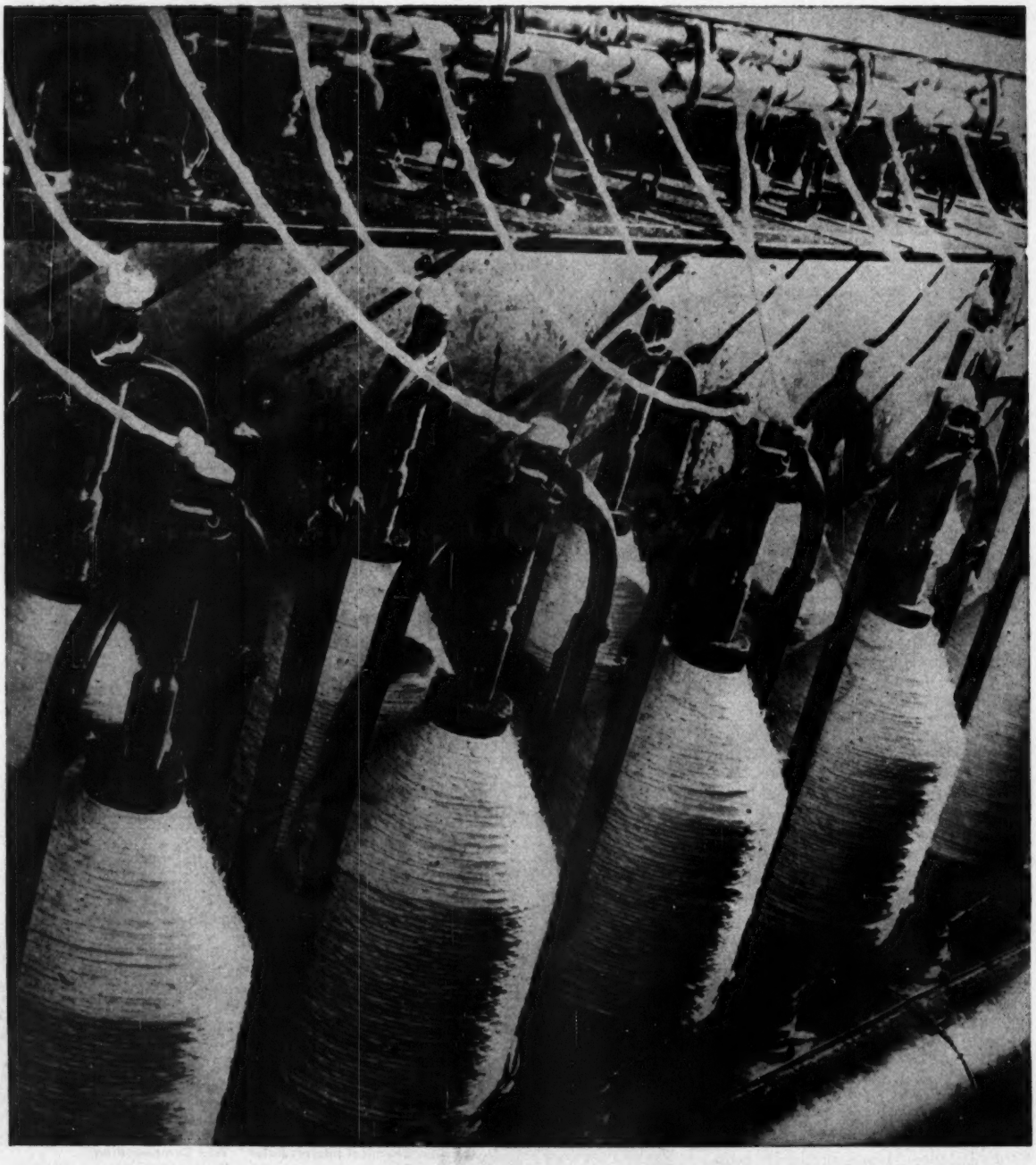
Fat Armorer: Linoleic acid could be one answer to radiation sickness. The protective effect of the fatty acid was discovered in experiments with rats at University of Southern California. According to reports, small daily doses of linoleic acid enabled male rats to survive damaging X rays for an average of 74 days. Average survival time for a control group was 53 days. Moreover, reveal the USC scientists, the armoring effect is cumulative; the longer the acid is taken, the better the chances for surviving large doses of radiation.

•

Octuplets: Eight new arrivals extend the roster of American Petroleum Institute standard samples. They are: 4-thioheptane; 1-propanethiol; benzenethiol; 2-methyl-1-propanethiol; methanethiol; 3-methyl-cis-3-hexane; 2,3-dimethyl-2-pentene; 1,3,5-triethylbenzene. All are available from Petroleum Research Laboratory of Carnegie Institute of Technology (Pittsburgh, Pa.).

•

Simple Sampler: Tracerlab, Inc. (Boston, Mass.) is out with a simple, inexpensive air sampler for use with radioactivity laboratory vacuum pumps and lines. The device is tagged BI-101, is suitable, says the firm, for nearly all vacuum systems.



Chemistry's No. 1 Customer...

Textile production, consuming one fourth of U. S. industrial chemicals, ranks easily as the manufacturing chemist's No. 1 customer. Pennsalt Chemicals... chlorine, ammonium and potassium persulfate, caustic soda, hydrogen peroxide, and corrosion-resistant cement . . . contribute substantially to the special qualities of America's myriad textiles, new and old.

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Pennsalt Chemicals

RESEARCH . . . . . .

Enzyme Advance: A new coenzyme, valuable in cancer research, has been isolated by chemists of Pabst Brewing Co. (Milwaukee, Wis.). Known as uridine triphosphate, the biochemical is a yeast component, will sell for several thousand dollars an ounce. Only minute quantities, however, will be needed for cancer studies.

•

Filling a Need: A new engineering research institute has made its debut at Tulane University (New Orleans, La.). Catering to industry in the Gulf Coast area, the new organization will offer research services in more than 20 specialized fields. Among them: fluid flow; heat transmission; analog computations, stream pollution, and electronics.

•

Quick Thinker: Newly available to the petroleum industry is a rapid analyzing device that uses radioactive isotopes to pinpoint the percentage of hydrogen (or hydrogen-carbon ratio) in organic compounds. Tagged the Beta Ray H/C meter, the instrument was invented by Standard Oil Co.'s (Indiana) Robert Jacobs and Lloyd Lewis. Its use, claims Standard, may result in new specifications for fuel oils, jet fuels and other combustible products. The company has licensed Central Scientific Co. (Chicago) to manufacture and sell the meter.

•

Process Advance: Patent applications have been filed by Gallowhur Chemical Corp. (Ossining, N.Y.) on a new process for making diphenyl mercury. According to Gallowhur, the process involves a relatively simple series of ionic reactions, gives yields of 80-90%. Moreover, states the firm, no "expensive or noxious reagents" are used, no separation problems are involved. Thus far, the technique has been used only on a laboratory scale, but as a full-fledged production process it could reportedly turn out a product pegged at $20/lb. (Present cost of the compound is $100/lb.) Sluggish commercial interest has delayed commercial development of the Gallowhur technique. Reports the company: the only foreseeable market for diphenyl mercury would be as an intermediate in the preparation of such diaryls as diphenyl selenium, diphenyl lead acetate, etc.

•

Alkaloid Debut: Serpasil, a pure crystalline alkaloid of *Rauwolfia serpentina*, has just been introduced by Ciba Pharmaceutical Products, Inc. (Summit, N.J.). The material is a mild hypertensive agent, is being com-

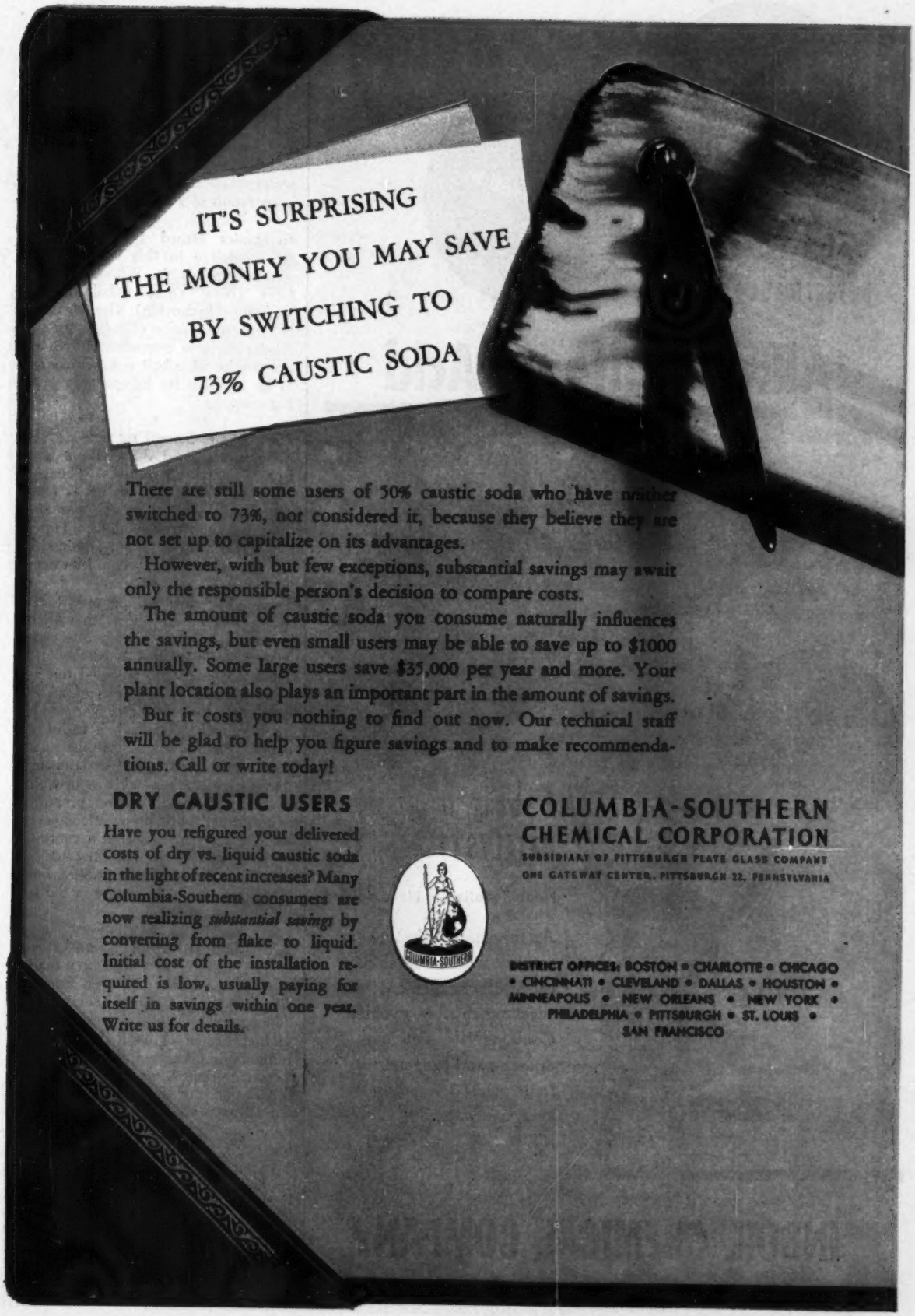
mercialized on the strength of clinical results obtained here and abroad. Chemical structure of the alkaloid was finally elucidated only a few weeks ago (*CW, Oct. 31*).

•

Agriculture Reshuffle: Agricultural Research Administration does not escape reshuffling in Secretary Benson's controversial plans for reorganizing the Dept. of Agriculture. Reorganization proposals, outlined in a recent memo by Research Administrator Byron Shaw, create the following operating units:

- Crops research – Entomology, field and horticultural crops. It takes over from the present field crops group of Bureau of Plant Industry and from researchers of Bureau of Entomology and Plant Quarantine. Studies of forest diseases and forest insects are being considered for transfer to the Forest Service, while the latter will probably be asked to give up grass and range management research.
- Farm and land management–Soil and water conservation research, agricultural engineering research, and production economics research. It will assume, in large measure, comparable functions of the present Bureau of Plant Industry, Soils and Argicultural Engineering. Production economics research will consist of work now under the aegis of Bureau of Agricultural Economics.
- Livestock research–Animal husbandry research, dairy husbandry research, and animal disease and parasite research. Bureaus of Animal Industry and Dairy Industry will yield to this unit. Certain meats research of the former, however, are slated for transfer to the utilization research unit. Processed butter inspection will be taken from the latter.
- Utilization research–Four regional research laboratories and the Washington Utilization Research subgroup. The last-named will take over dairy products research (from Bureau of Dairy Industry), certain meats research (from Bureau of Animal Industry) and utilization research activities of the present Bureau of Plant Industry, Soils and Agricultural Engineering.
- Human nutrition and home economics research–Will encompass the present activities of the Bureau of Human Nutrition and Home Economics.

In addition, control and regulatory programs will be taken out of the hands of Bureau of Animal Industry and Bureau of Entomology and Plant Quarantine; instead, they'll be centered in subgroups, which will ad-



There are still some users of 50% caustic soda who have neither switched to 73%, nor considered it, because they believe they are not set up to capitalize on its advantages.

However, with but few exceptions, substantial savings may await only the responsible person's decision to compare costs.

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Have you refigured your delivered costs of dry vs. liquid caustic soda in the light of recent increases? Many Columbia-Southern consumers are now realizing *substantial savings* by converting from flake to liquid. Initial cost of the installation required is low, usually paying for itself in savings within one year. Write us for details.

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RESEARCH. . . . . .

minister the crop and livestock programs.

•

Amide Aid: Methoxyethyl thioglycolate is the newest chemical offering by Evans Chemetics, Inc. (New York). The sulfur-containing ester, a water-white liquid, is useful in the preparation of substituted amides.

•

Inorganics Heard From: Inorganic representative in this week's list of new chemicals is Witco Chemical Co.'s (New York) cobalt hydrate (cobaltous hydroxide). The newcomer is a reactive source of cobalt for synthesis, has also proved useful in the preparation of cobalt paint driers and as an additive for lithographic printing inks.

•

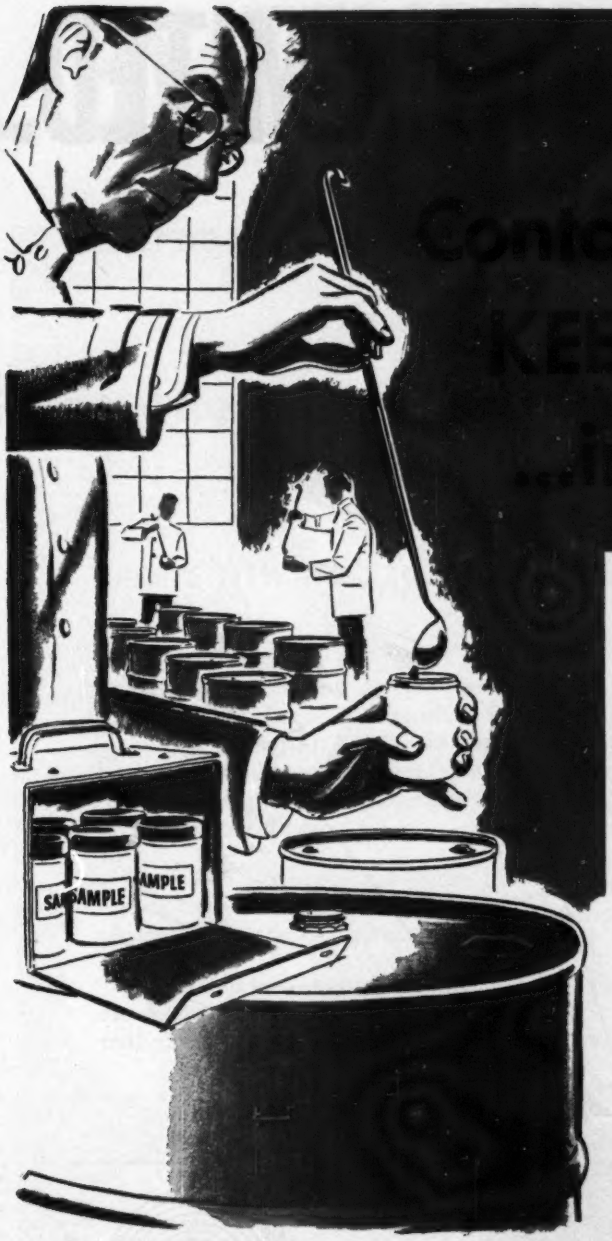
Force Flow: Something new in laboratory ovens are Labline, Inc.'s (Chicago) forced air models. The new ovens are available in two types (horizontal and vertical flow), four sizes and two temperature ranges (up to 950 F). Air circulation is provided by high-pressure motor-driven blowers.

•

Happy Forecast: At the recent 11th annual meeting of the Electron Microscope Society of America at Pocono Manor, Pa., virologist A. R. Taylor, of Parke, Davis & Co., unveiled the first authenticated photographs of an isolated poliomyelitis virus. The unique photos show the polio bug to be one of the smallest of all viruses. They were made as part of a research project, which, Parke, Davis reports, "indicates the feasibility of preparing concentrated virus preparations necessary for the production of a vaccine." The company does not now have a vaccine for general use; implies, however, that it may have one in the not too distant future.

•

Small but Powerful: A pocket-size radiation source may soon be a reality if work at Armour Research Foundation (Illinois Institute of Technology), Chicago, does not hit a snag. The midget source emits X rays, is the brainchild of Armour nuclear physicist Leonard Reiffel. According to the foundation, the device can be made in almost any size, requires no electronic equipment or wiring connections. Secret: X rays are generated by beta rays, emitted from a radioactive core, driving through a heavy metal shell; radiation may be turned off by replacing the device's metal shell with a beta ray-absorbing plastic sheath. Potential uses for the miniature generator: in medicine; industrial research and process control.



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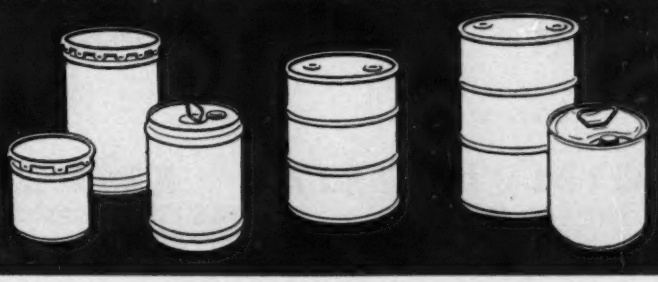

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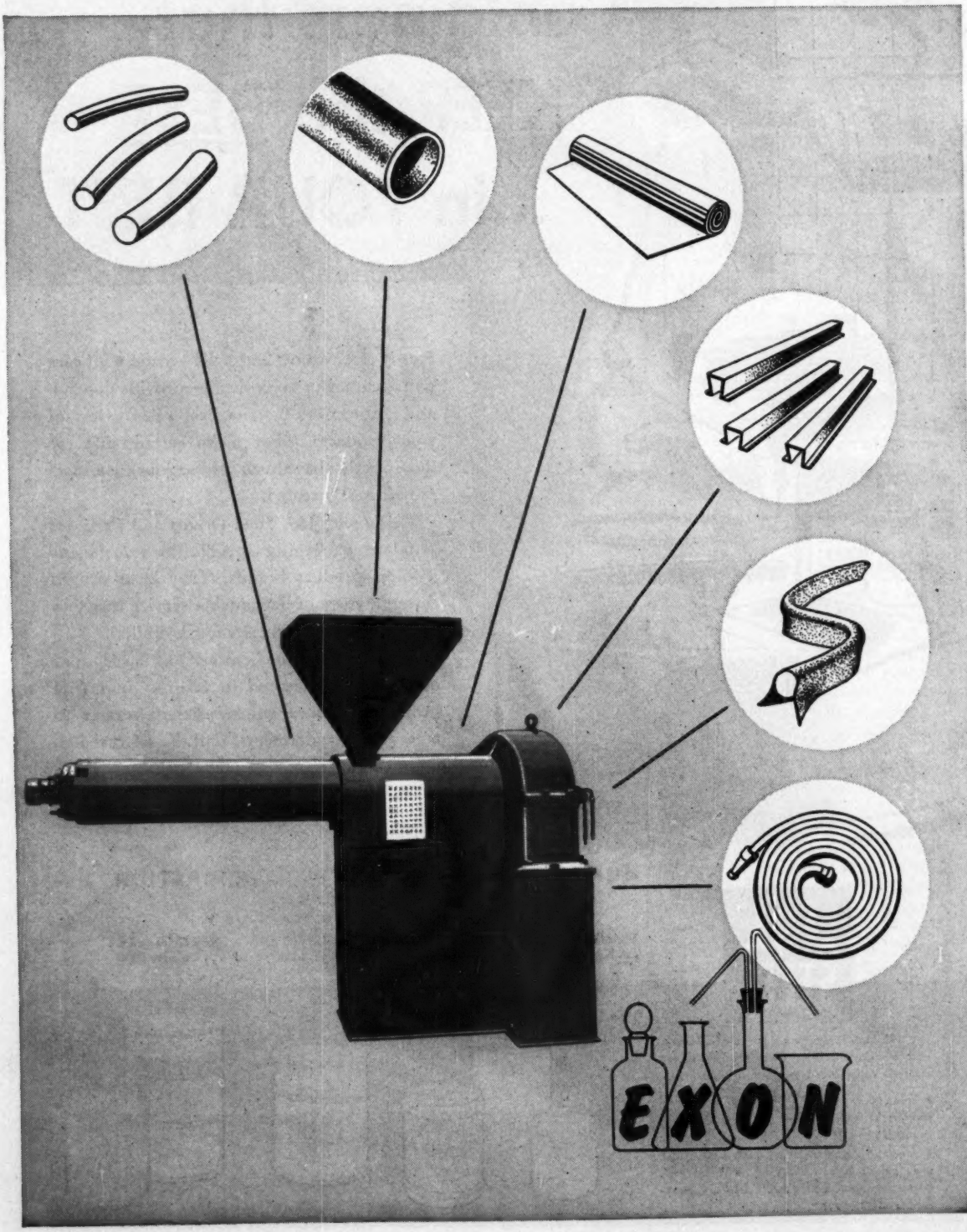

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EXON 905 Excellent for film and sheeting applications where higher temperatures (up to 375° F.) are called for.	White Powder	1.40	2.50	0.45
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For further information on Firestone's complete line of high quality EXON resins... or for the assistance of Firestone's Technical Service, call or write:

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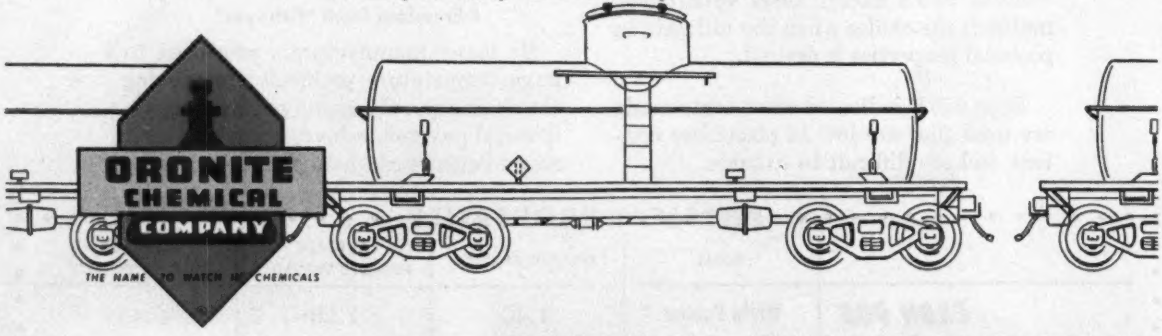

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Detergent Slurry	Polybutenes
Detergent D-40	Naphthenic Acids
Detergent D-60	Phthalic Anhydride
Dispersant NI-O	Maleic Anhydride
Dispersant NI-W	Para-Xylene 95%
Wetting Agents	Ortho-Xylene
Cresylic Acids	Xylol
Gas Odorants	Aliphatic Acid
Lubricating Oil Additives	Hydroformer Catalyst
Sodium Sulfonates	Dispersant FO (Domestic Fuel Oil Inhibitor)

2867

ORONITE will soon have Phenol available in tank car quantities and will be able to offer you advantages as a *real* source of supply.

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ENGINEER HARRIS (LEFT) presents the cyanide problem to researchers Davidson (center) and Polger. The sheer simplicity of the German method appeals to him.

Solved with Simplicity

Columbus, according to legend, showed that the most difficult projects sometimes have a simple solution. To illustrate his point, he stood an egg on end. Trubek Laboratories (Rutherford, N. J.) has proved the same thing with its new slick—but simple—method of disposing of its cyanide waste.

Trubek is currently half through a $60,000 waste disposal program. And the most ticklish job in the whole program was engineering a system to get rid of its waste sodium cyanide.

In the manufacture of benzyl cyanide, benzyl chloride reacts with sodium cyanide. Residue from the reaction runs about 15% sodium chloride, an estimated 0.5% unidentified organics. Since the reaction calls for an excess of cyanide the residue also contains 10,000 ppm. of sodium cyanide. There isn't enough of it to make recovery worthwhile; but nevertheless there's entirely too much to discharge to the stream.

Suitable but Expensive: Disposal of cyanides is not a problem unique to Trubek of course or even to the chemical industry. It has plagued segments of the metallurgical field for many years.

Similarly, several successful commercial methods of treating the cyanides have been developed. One that has lately won favor is chlorination. At a pH above 8.5, addition of chlorine to a cyanide solution oxidizes the cyanides to cyanates, which are about a thousandth as toxic to fish as the cyanides. This reaction is a straightforward one, goes almost instantaneously and quantitatively.

Trubek's chief engineer, Morton ("Micky") Harris considered chlorination, found the cost of installing the necessary equipment to be between $8-9,000. What's more, the cost for chlorine alone would be about 0.5¢/lb. of cyanide treated.

Instead of going ahead with the chlorination, Harris presented the problem to the firm's consultant, David Davidson, and to Group Leader Frank Polger. In the preliminary literature search, they found a reference to an old German method of heating cyanide to form ammonia and sodium formate.

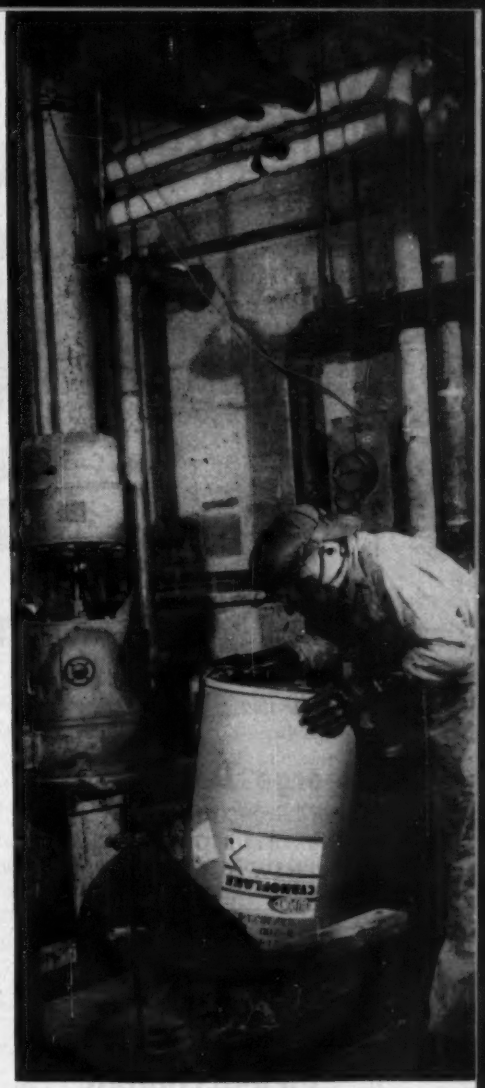
The sheer simplicity of the idea appealed to Harris, so he encouraged further investigation on it. It turned out to be a highly satisfactory method.

When the process was finally installed, the entire cost of tying it into the system was about $1,500. And operating costs, for all practical purposes, are negligible, since steam is all that's required.

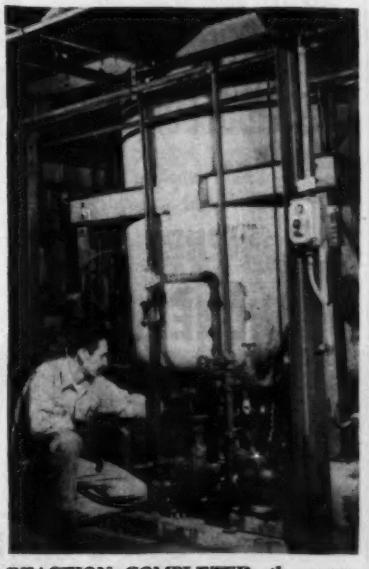
This is how it works: residue is pumped to an iron vessel and heated to 160-170 C. Three to four hours of heating is sufficient, but Trubek leaves it there for six or seven hours to accommodate it to the benzyl cyanide cycle.

By that time, cyanide content is reduced to approximately 4 ppm. It's then diluted with other process water, and by the time it's discharged, cyanide content is down to 0.04 ppm.

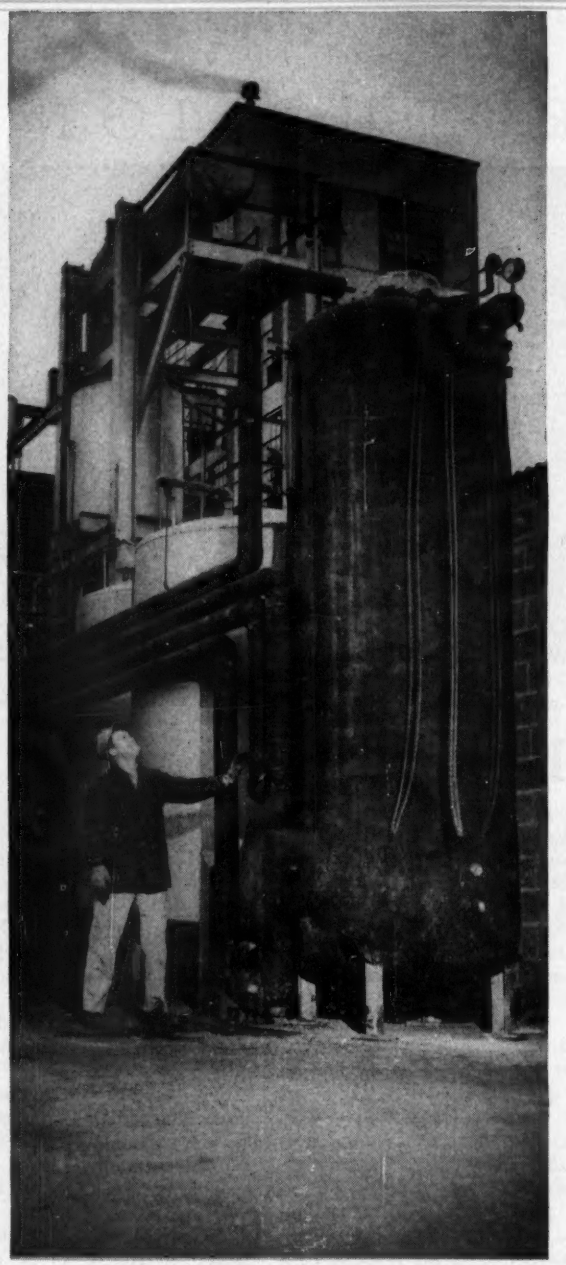
Since only small quantities are



IN MANUFACTURE of benzyl cyanide, the sodium cyanide is charged to reactor.



REACTION COMPLETED, the operator discharges residue to . . .



. . . A CLOSED VESSEL, where it's heated to 160-170 C for six or seven hours. Cyanide content is reduced to 4 ppm.

involved, Trubek doesn't consider recovery of the materials. Its investigations on the subject, however, disclosed no reason why the formate and ammonia could not be recovered. There's no reason, for example, why a firm handling larger quantities couldn't clean up the residue, heat it and recover the materials. It should work well on potassium cyanide, too.

It isn't seeking patents on the process, merely hopes it can pass on to others the dividend it received from the literature. The odd part is that the Germans weren't looking for a cyanide treatment method: they were investigating it as a means of making ammonia. But then Columbus, when he started on his journey, wasn't looking for a bright new world: he was seeking a short cut to India.

•

Refinery First: It was a different chemical and called for a different approach but it's still waste disposal. That's the substance of news from Sun Oil Co.'s Sarnia (Ont.) refinery. The problem: disposal of phenol and other organic wastes. The approach: installation of a bacterial oxidation unit. It's the first time, says Sun, that any refinery in the world has put in such a system. The refinery starts operation the middle of this month.

Which of Three?

The government's General Services Administration is studying a report by the Batelle Memorial Institute (Columbus, O.) that evaluates three processes for extracting nickel from Cuban low-grade nickel-containing laterite ore. Potentially hinging on the study: the government's future policy on Cuban nickel, and the immediate future for the three processes.

There are presently two proposals before the government for boosting nickel production in Cuba. One comes from Freeport Sulphur, which owns deposits at Moa Bay, Cuba. Freeport would build a plant there using the process it is developing in conjunction with Chemical Construction Corp., provided that the government would contract to buy the output and grant the firm a certificate of necessity.

The other proposal comes from Nickel Processing (owned 60% by National Lead, 40% by Cuban private interests), which operates the government-owned Nicaro nickel plant. Government officials are talking about a 75% increase for the plant, which is rated at 27 million lbs./yr.

Looking at Three: Battelle took a look at three processes suitable for the expansions: the process presently employed by Nicaro, which is the Dutch-developed Caron process as modified by Freeport (original operator of the plant); the Chemico-Freeport acid leach; and a nitric acid leach process developed by Bethlehem Steel.

There are, of course, advantages and disadvantages to the use of all three. Here's how they stack up:

- In the present process used at Nicaro, the ore is ground dry, fed to a Herreshoff roaster, where in a reducing atmosphere it's reduced to metallic nickel. But the nickel isn't available, so it's leached with ammonia to form ammonia nickel carbonate. Ammonia is distilled off, then carbon dioxide is driven off, to leave nickel oxide.

The principal rap against the process is that it doesn't turn out a metallic nickel and that the cobalt that's present in the ore is not separated out.

Still, on the other hand, it's an established process; it can produce nickel satisfactorily. It is, in short, a known quantity.

- Very little information is available on the Freeport-Chemico sulfuric acid leach. Development work on the leaching aspect is being carried out by Freeport Sulphur at Freeport (Tex.), while Chemico is investigating the reduction and separation of the leached material at its Linden (N.J.) pilot

plant. It's essentially a leach with sulfuric acid similar to the process being put through its paces at Howe Sound's Garfield (Utah) refinery and by National Lead at Fredericktown (Mo.) (*CW, Sept. 26*) on sulfide ores.

Freeport is sold on the technique as it applies to the Cuban ores. It gives as its main reason the fact that it turns out metallic nickel. But despite the extensive development work already carried out and despite Chemico's hard-earned know-how gained on the similar projects, many feel that pilot-planting would be required for the Cuban ore.

• Bethlehem's process is the dark horse candidate. Like the Chemico-Freeport one, it's clothed in secrecy. Last year, however, Bethlehem patented a sulfuric leach (U.S. Pat. 2,584,700), presumably has modified that to a nitric acid leach.

Also like the Chemico-Freeport process, Bethlehem's method turns out metallic nickel and cobalt. And in addition it produces a smeltable iron ore (though you wouldn't want to bet that the other couldn't be adapted to do that also). Another big plus is that the nitric acid can be recycled.

One line of reasoning, then, runs something like this: since Bethlehem's leach also turns out iron ore, you can afford a much bigger investment in the plant. The opposite school counters with a question: Are you building a nickel-cobalt plant or one to make iron ore?

If either of the acid leaches proves to be the method of choice, it will probably require more extensive pilot-plant work. And, in any case, the final decision by the government must be based not solely on the process used but also on other factors, such as supply-demand balances, extent of reserves. Unquestionably the Battelle report will carry a lot of weight in that decision.

EQUIPMENT. . . .

Moving Along: The major differences between modern factories in Europe and in this country in the handling of materials, said Jervis Webb, Detroit conveyor manufacturer, last week to engineers taking adult education courses at Wayne University. Domestic manufacturers of materials handling equipment, in wholehearted agreement with his words, are eager to consolidate their gains. Last week, for instance:

• Lamson Corp. (Syracuse, N. Y.), big in conveyors, decided to become big in the whole field of materials handling, bought out the Mobilift Corp. (Portland, Ore.). Now, says Lamson, it can engineer a complete materials handling system from start to finish and is the first firm to be in such a position.

• Eimco Corp. (Salt Lake City), which has previously mounted its high-leverage, rocker-arm loaders on conventional tractors for heavy-duty surface work, has just revamped design through a new clutchless tractor. When a $3-million retooling program is completed, Eimco will turn them out on a one-a-day basis. Tagged the Model 105, it's claimed to be a radical departure from previous models.

• Clark Equipment Co.'s Industrial Truck Div. (Battle Creek, Mich.) has made a swinging clamp attachment available for use in conjunction with all its gas- and electric-powered Carloader fork-lift trucks. The clamp attaches to either side of a narrow aisle to grasp or to tier loads behind materials already stacked. It has a full 180-degree traverse, is aimed for applications where aisle space is at a premium or where load removal and tiering is selective.

• Fuller Brush Co.'s Industrial Div. is now selling cylinder brushes specially designed for a new drive assembly plan on conveyor belt cleaning systems. The assembly plan taps the conveyor head pulley, eliminates the need for a separate power unit.

• Gifford-Wood Co. (Hudson, N. Y.) is pushing a powerless drop that mechanically lowers cylindrical loads from one floor to another, discharges them automatically. It works like this: a load is rolled onto the carriage, a lever is pulled and the load starts to descend. As it goes down, a piston-like counterweight, housed in the cylinder, ascends and forces air through a needle valve opening at the top of the cylinder. Energy expanded in forcing the air through the opening controls the motion of both counterweight and carriage.

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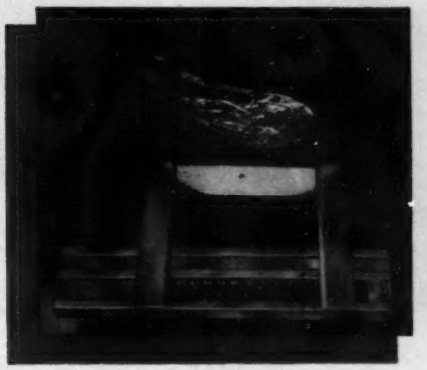
Data on Ortho: Not materials handling, but handling of materials is the word from the Manufacturing Chemists' Assn., which has just published the latest of its safety data sheets. Numbered SD-54, it deals with *o*-dichlorobenzene, gives essential physical properties along with recommendations for safe handling, storage and transportation of the compound. Some of the pertinent facts: *o*-dichlorobenzene, a colorless aromatic, is slightly toxic but in normal use and with certain precautions involves no unusual hazards. Its vapor is irritating to the eyes and to the upper respiratory system, but that means it gives

at

NATIONAL CAN

SHE WORKS FOR YOU IN "QUALITY CONTROL"



Throughout regular production runs, sample cans are brought to Mary Stryczek in the "Quality Control Laboratory." Specially designed precision cutters prepare a cut across the double seam and the cut section of the can is then placed into the "Seam Projector." This amazing scientific instrument projects an enlarged picture (39.4 x enlargement) showing the body hook and end hook. The projected picture is calibrated with built-in calipers to verify accuracy of manufacture and correctness of "Butting", which helps guarantee you a perfect bottom seam and a better can. Typical National Can Service—where it counts!

NATIONAL CAN CORPORATION

Plants At: BALTIMORE, MD. • CHICAGO, ILL. • MASPETH, N.Y.
CLEVELAND, OHIO • HAMILTON, OHIO and WARREN, OHIO

its own warning. Accepted maximum allowable concentration: 75 ppm. by volume in air for an 8-hour working day.

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Stainless Substitute: Battelle Memorial Institute's H. O. McIntire and George Manning reported last week, at the annual meeting of the Wire Assn., in Columbus, O., the development of a new iron-based alloy. It was developed as a substitute for stainless in the reinforcing braid of Signal Corps lightweight communications cable, but, agreed the two, it should find use in other places requiring a material that has moderate corrosion resistance, good workability and is not easily magnetized. The new alloy replaces the nickel in stainless with manganese, uses considerably less chromium than stainless.

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News on Noise: Noise needn't bother you when you're making a telephone call in the noisiest of plants, says Gai-Tronics Corp. (Reading, Pa.), provided you use its new Gai-(rhymes with wry) phone. It can be installed quite simply, it adds, and can be hooked in with present systems using conventional telephones. The clue to the performance, says the maker, is a dynamic transmitter that provides a high order of discrimination against surrounding noise and gives high-quality voice transmission.

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New Roof: Plasteel Products Corp. lays claim to the nation's first protected metal roof deck for heavy industry. The firm has spent three years developing and testing it, claims it answers all construction problems under any atmospheric condition. Dubbed the Plasteel Roof Deck, it consists of structural steel coated with three layers: one a bond coat, one a weather-sealed asphaltic plastic coat, and the third, a pure mineral mica topping. Pres. J. E. Rosenberg says the roof assures longer life, less maintenance and more protection than competitive materials. He sees a wide application in all fields, particularly in chemical plants and paper mills.

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Fluroplastic Packing. United States Gasket Co. (Camden, N. J.) claims an answer to corrosion problems in tower packings with its Kel-F Raschig rings and perforated Kel-F discs for packing supports.

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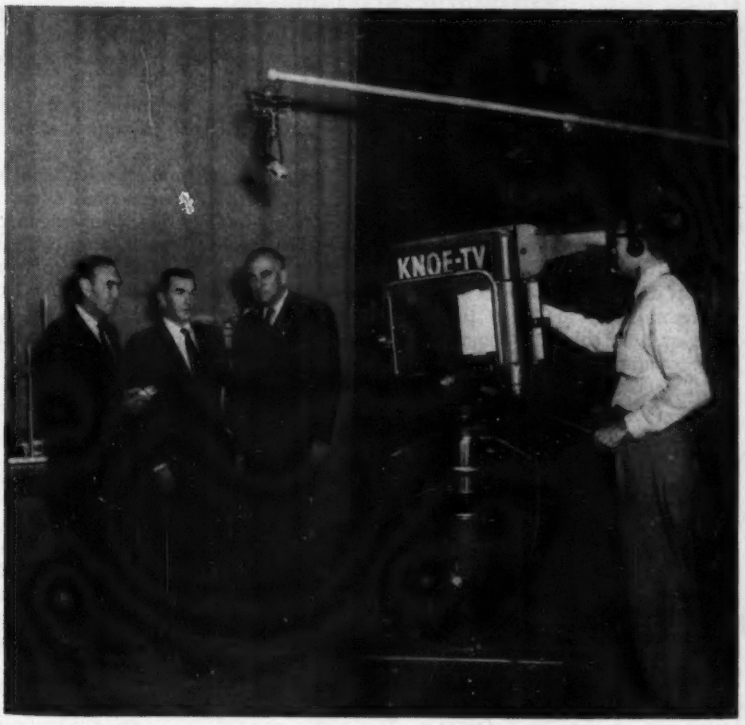
New Distributor: The Aluminum Co. of America has appointed The Hamilton Steel Co. as its second distributor of aluminum products in the Cleveland area.



INTRODUCING A TOUR: CSC President Woods, researcher Leonard Stengel, Vice-President Thomas Carswell.

FROM FOUR DIRECTIONS: Guests watch "sneak preview" over TV.

TV Tour—New Sales Pitch

Most television advertisers probably consider themselves either skillful or lucky if they can hold their audience through two or three spot "commercials" interspersed in a half-hour entertainment program. To hold the attention of your audience while giving them practically a solid half-hour sales pitch would seem to call for something pretty special.

And it was pretty special recently when Commercial Solvents Corp. turned the trick. It showed that advertising could be made not only palatable, but also downright entertaining.

The occasion: official opening of CSC's new $20-million facilities at Sterlington, La. Casting about for some manner of cementing good public relations in the local area, the site of almost half of all CSC capital investment, the management decided to dramatize the opening of its plant over a local television station.

Originally conceived as a friendship-building gesture to the local populace, the idea of featuring the new plant opening snowballed into:

- A goodwill and morale-building promotion for CSC employees and their neighbors.
- A first-hand view of CSC progress for business executives nationwide.
- A selling effort aimed at potential CSC fertilizer chemical customers (and, in turn, the customers' customers).

Quadruple Bill: Termed a "sneak preview," the CSC story "And So We Grow" appeared over KNOE-TV, Monroe, La., as a "personally conducted tour . . . of the newest and biggest expansion to come to our part of America." The following 30-minute show proved to be much more than that; it was a sightseeing of four separate CSC operations.

The two groups of televiewers—the local population in their own homes, and the special guests of CSC at the plush Bayou Desiard Country Club, which was set up with four giant-size screens (*see cut*)—were taken, via TV, through:

- CSC's Thermatomic Carbon Co. plant at Sterlington.
- Its new ammonia and methanol facilities at the same location.
- The ammonium nitrate plant at Terre Haute, Ind.

Smooth Blend: In selling CSC over the air, the programmers convincingly blended several staging artifices. They:

- Linked together each separate plant "tour" and began each with studio stage discussions between company executives and well-known local public figures.
- Wound up the studio discussions with scenes of plant photo murals, and then
- Switched to film for each actual "tour."

And while the continuity of presentation was aimed at carrying the audience along, two main script de-

vices were used to put across CSC's selling points:

• The scenario was centered about the concept of industrial expansion in the local area. Sample remark: "The program you are about to witness is your story . . . of the growth of the particular part of the world in which we live." And later, after the ammonia plant tour: "Agriculture, with help from just the kind of products CSC makes, has forged ahead. . . ."

• Total use of regular operating staffs as actors supplied a high human interest local touch to the in-plant "tours." Samples of commentary on the operations:

"You're looking at Shift Foreman Charles English who is about to switch. . . ."

"That's Alec Williams filling the bags, checking for accurate weight. . . ."

Here's Buster Hare, gas analyst, running a check to determine. . . ."

". . . while electrician Dub Peek works with foreman Pete Brantley on. . . ."

"You're looking now at the underside of the control console, run by James Pickel. . . ."

In all, close to 100 operating personnel names were mentioned.

Although the television program was considered as primarily an indirect public relations selling attempt, it has already yielded:

• A big jump in requests for employment in the CSC plants.

• Numerous enthusiastic responses from televiewers in appreciation of the program.

• Inquiries from chemical and fertilizer distributors concerning how to get on the CSC sales bandwagon.

The Score: Was it all worth the time, money and effort? Did the combination of top executives with local celebrities and plant personnel, via TV, add up to a sense-making selling job? CSC is inclined to think so.

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Appointment: The Chemical Products Div. of Archer-Daniels-Midland Co. has appointed C. A. Hemingway as Ohio district sales agent for ADM rubber makers' stearic acid.

•

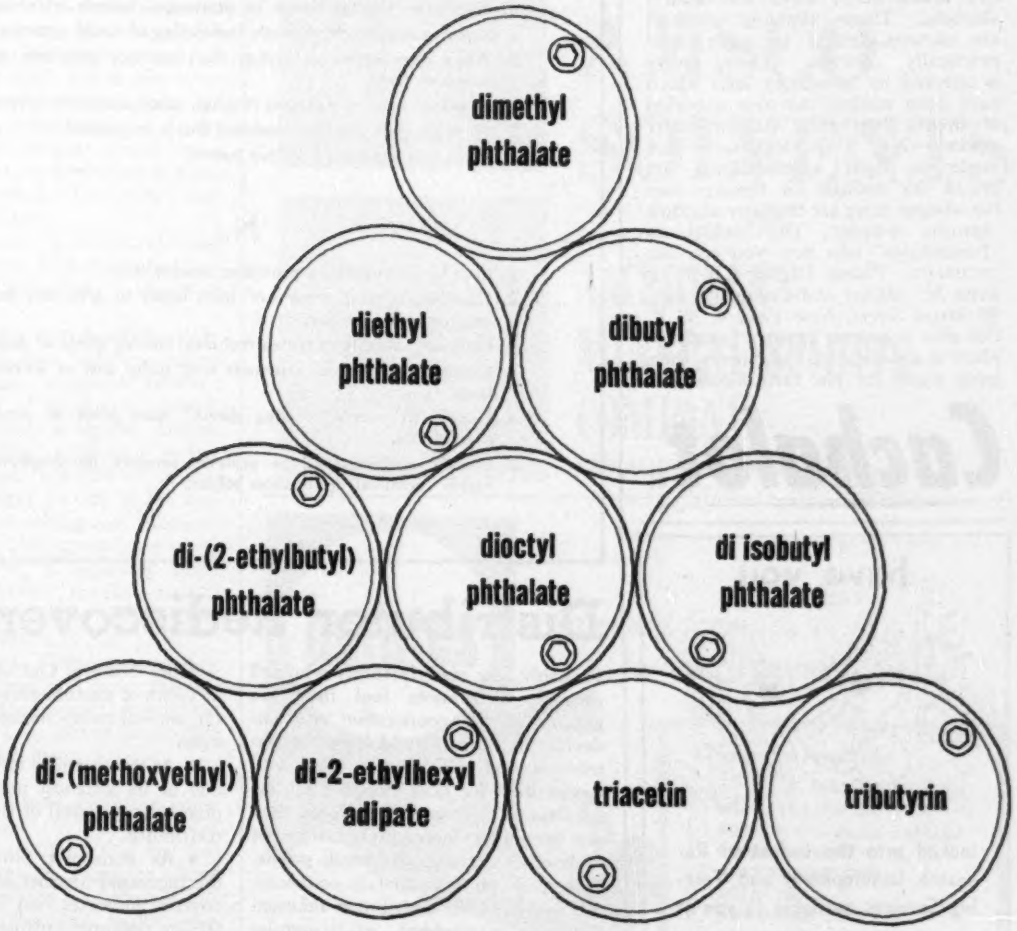
Du Pont Shift: Responsibility for further commercial development of Hypalon chlorosulfonated polyethylene has been assigned to the Rubber Chemicals Div. of the Organic Chemicals Dept. Heading Hypalon sales is newly named assistant sales development manager Samuel McCune III, formerly New York district sales supervisor.

Pots For Aluminum Pigs

LOADING BEGINS at Vancouver, Wash., of 116 huge steel reduction pots bound for Kitimat, B.C., where the Aluminum Co. of Canada is building one of the world's largest plants. The above pot, used to smelt ore down to aluminum pigs, weighs eight tons, measures 32 ft. long, 11 ft. wide, 3½ ft. deep, was made in Vancouver by the American Pipe & Construction Co. Two more bargeloads scheduled to go north during succeeding weeks will put a total of 346 pots into the new plant. Production will start next June.

EASTMAN
INDUSTRIAL CHEMICALS

plasticizers



Call or write for your copy of our PLASTICIZERS booklet. It contains specifications, properties and typical uses for all Eastman plasticizers.

These products are stored in bulk at Kingsport, Tennessee and Lodi, New Jersey by Tennessee Eastman Company; by DeMert & Dougherty, Incorporated in Chicago, and St. Louis, and by Anderson-Prichard Oil Corporation in Akron.

Eastman
CHEMICAL PRODUCTS, INC.
KINGSPORT, TENNESSEE

Sales representative for **TENNESSEE EASTMAN COMPANY,** division of **EASTMAN KODAK COMPANY**

SALES OFFICES: Eastman Chemical Products, Inc., Kingsport, Tenn.; New York—260 Madison Ave.; Framingham, Mass.—65 Concord St.; Cleveland—Terminal Tower Bldg.; Chicago—360 N. Michigan Ave.; St. Louis—Continental Bldg.; Houston—412 Main St. **West Coast: Wilson Meyer Co.,** San Francisco—333 Montgomery St.; Los Angeles—4800 District Blvd.; Portland—520 S. W. Sixth Ave.; Seattle—821 Second Ave.

165

Should You Use a Distributor?

Yes

1. Cuts handling of large number of small orders.
2. Saves freight and shipping by taking over less-than-carload-quantity orders.
3. Eliminates capital tie-up in producers' branch warehouses.
4. Reduces credit risk through knowledge of small consumers.
5. When carrying larger variety than any one producer, spreads coverage costs.
6. Broadens base of contacts through more intensive coverage.
7. Through close contacts, reduces buyer migration.
8. Augments producers' selling forces.

No

1. May be bottleneck in providing market data.
2. Handling several producers' lines tends to give less personal emphasis to any one.
3. Ordinarily unable to match technical service given by producer.
4. Demands for special discounts may make cost of services too high.
5. Unable to match "dealing direct" sales point of producers' competitors.
6. Usually not qualified to perform product development and highly technical application selling.

Distributor Rediscovered

Probably few manufacturers who sell through distributors feel they are getting all the cooperation and understanding they should from the distributor—and vice versa. But with competition for sales stepping up, regardless of their mutual feelings, they are becoming increasingly aware of each other's strong and weak points. Last week, on two separate occasions, the manufacturer-distributor relationship was spotlighted. At a regular luncheon meeting of the Sales Executives Club, at New York's Hotel Roosevelt, the Club featured a sales skit titled "Manufacturer Meets Distributor Face to Face."

And later on, the same day, the Chemical Engineers of Greater New York convened for a forum discussion. Topic: "Relationships Between the Chemical Distributor, His Suppliers and His Customers."

At the Chemical Engineers' get-together, maker-distributor A. H. Mathieu, Celanese's John Stevens and McKesson & Robbins' L. Stievater, Jr., threshed out the advantages and shortcomings of distributors' sales.

More Mature: Out of the diversity of views of manufacturer and distributor, several points seemed to be agreed upon:

- As the chemical industry matures, one of its foremost needs is a really objective appraisal of the place of the distributor.
- As consumer studies multiply, the increased number of end uses uncovered indicates that the job of contacting potential customers is growing beyond the reach of any single sales force.
- With the shift from a seller's to a buyer's market, any assistance that the distributor can supply—in offering additional sales coverage and reduced selling expense—will become of increasing importance.

Stepchild? On other counts, distributors and producers have been holding varying opinions. Typical distributor reaction: for some time, he has been treated as a stepchild. Particular complaints:

- Many producers, up to the present time, have not been seriously concerned with distributors; some have

not sold anything through them.

• Other manufacturers have looked upon distributors as customers rather than an extension of their sales staffs; some have given them indifferent attention, not caring whether the distributor bought from them or from someone else.

• Chemical makers, taken as a group, have not been giving the distributors a fair chance to be trained on the manufacturer's products. Very often, for instance, the producer should assist the distributor by calling with him on the distributor's customers.

Fair-Haired Boy? But if the average producer has been guilty of neglecting his relationships with the distributor over the past several years, many observers are beginning to sense a change in attitude. This switch may be accelerated by:

• Rising costs of doing business; e.g., higher labor, higher freight rates.

• More realistic analyses of cost of sales.

As a result, the distributor may take over more of the less-than-carload sales. This may represent between 15% and 20% of producers' output.

As an example: a typical analysis of one chemical producer, selling nationally, shows that 82% of his production is bought by 5% of his customers, i.e. low-selling-cost business. The remaining 18%, spread over many small customers, is relatively high-cost-of-sale business. Result: much of the 18% might better be handled through distributors.

Keep in Mind: There's no certainty how far the trend will favor the distributor. But doubtless all far-sighted producers will keep him in mind while considering sales plans.

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Industrial Literature: Here are some current offerings:

• The Carborundum Co. has just printed a 52-page brochure titled "Facts About Silicon Carbide." It lists properties, applications, manufacturing techniques.

• Hercules Powder Co. now offers a new technical booklet on the use of ethyl cellulose in specialty coatings.

• Allied Chemical & Dye Corp.'s Nitrogen Div. has released a bulletin on biuret. Similar to urea, biuret can be used in many applications where urea or melamine is now used.

• American Cyanamid Co.'s Industrial Div. has published a 24-page booklet on papermaking. It outlines the properties of Cyanamid's paper chemical products and tells their uses.

• Monsanto Chemical Co.'s Phosphate Div. has put out a technical bulletin on the use of polyurethanes

DISTRIBUTION. . . . .

as adhesives for bonding rigid materials, such as metal-to-metal, glass-to-glass.

• A plastics manual and catalog has been printed by Fry Plastics Co., Los Angeles. Besides offering information on materials, equipment and supplies, it also contains some actual plastics samples. Price: $1.00.

• "Tank Car Classifications" is the title of a new 32-page booklet issued by American Car and Foundry Co. Included are the latest types of tank cars approved for a variety of specific commodities.

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New Bottle: Plax Corp., West Hartford,Conn., is now making a handle-equipped gallon-size polyethylene jug. It has a wide mouth (100 mm. neck).

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Squeeze Bottles: Plax Corp., West Hartford, Conn., has named four new distributors for its Plaxpak bottles. They are Atlantic Glass Co., Baltimore; Samuel Mallinger Co., Pittsburgh; Ohio Container Co., Columbus; White Container Co., Cincinnati.

•

Polymer Sales: A midwestern sales office and warehouse has been opened in Chicago by the Polymer Corp. Ralph Blanchard has been appointed manager.

• B. C. MacDonald and Co., St. Louis, will distribute Polymer Corp. products in Missouri, Kansas, Nebraska.

•

Pacific Guide: A new market guide for the Pacific area has been issued by American Foreign Credit Underwriters Corp. It lists and gives credit rating of more than 5,000 importing, distributing, and manufacturing firms.

•

Forest Future: The Weyerhaeuser Timber Co. has retained Stanford Research Institute of Palo Alto, Calif., to conduct a study of the future demand for American and Canadian forest products.

•

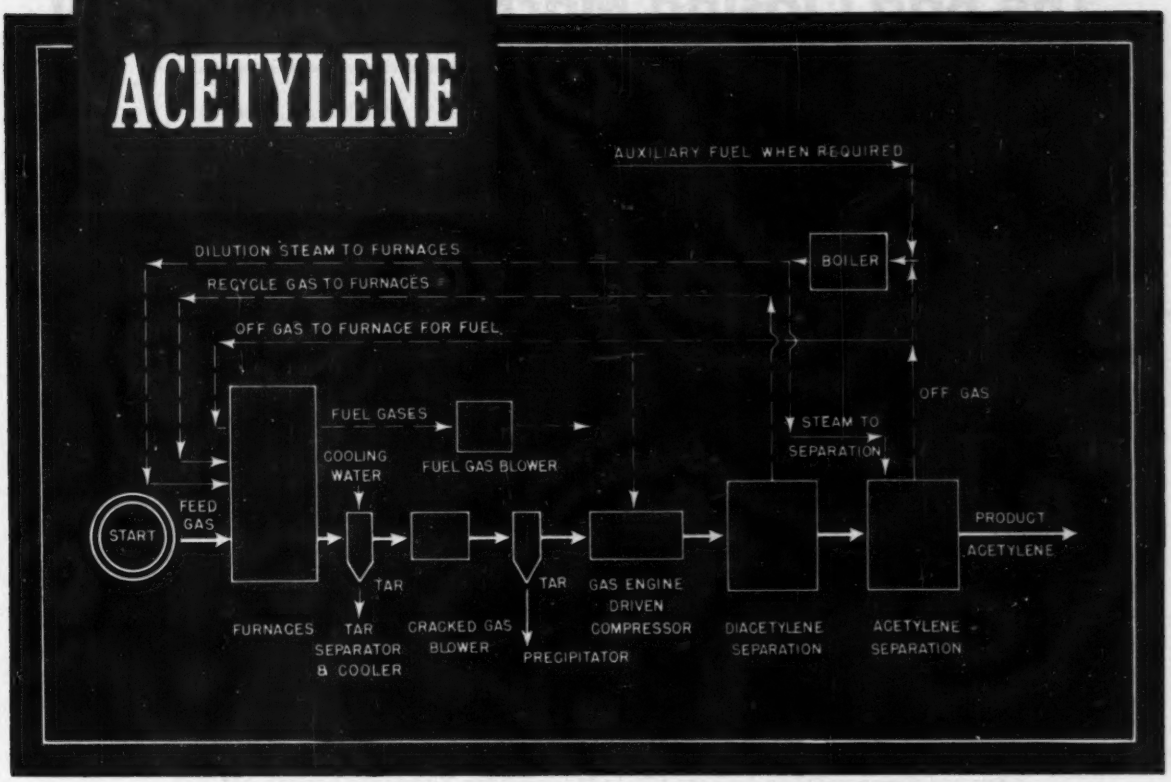
Brussels Branch: Parke, Davis & Co. has established a branch office in Brussels, Belgium. It will be under direction of the Parke-Davis London office.

•

New District Offices: Grace Chemical Co. is opening a district sales office in Atlanta, Ga. Its head, Raymond P. Ackerman, Jr., will be in charge of Southeastern area sales.

• The Fiber Glass Div. of Libbey-Owens-Ford Glass Co. is establishing a district sales office in St. Louis, Mo. Arthur S. White has been appointed the new district manager.

ACETYLENE

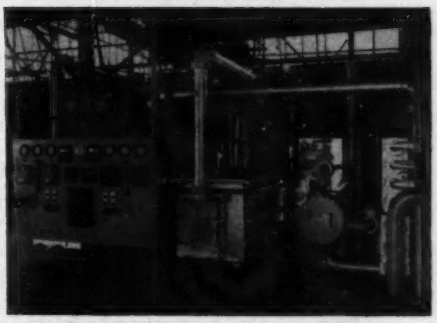


COST OF 5¢ PER POUND
shown by studies of acetylene process

GIRDLER economic studies of Wulff Process pilot plant data indicate that high purity acetylene can be produced by this process at substantial savings over the calcium carbide method. In one case, with natural gas feed, total acetylene cost is 4.82 cents per pound including plant depreciation. In another with propane feed, cost totals 6.41 cents per pound. The studies are based on a production of 20 million pounds per year of 99.5% purity gaseous acetylene.

All of the energy required for cracking natural gas, propane or butane is supplied by utilizing off-gas in efficient regenerative furnaces. Since availability of low-cost power is not a factor, these plants can be located wherever desired. With additional separation equipment, by-product ethylene can be produced.

For complete details on these studies of the Wulff Acetylene Process write or call our nearest office and ask for copy of "History and Economics of the Wulff Acetylene Process."



GIRDLER DESIGNS processes and plants
GIRDLER BUILDS processing plants
GIRDLER MANUFACTURES processing apparatus

GAS PROCESSES DIVISION:

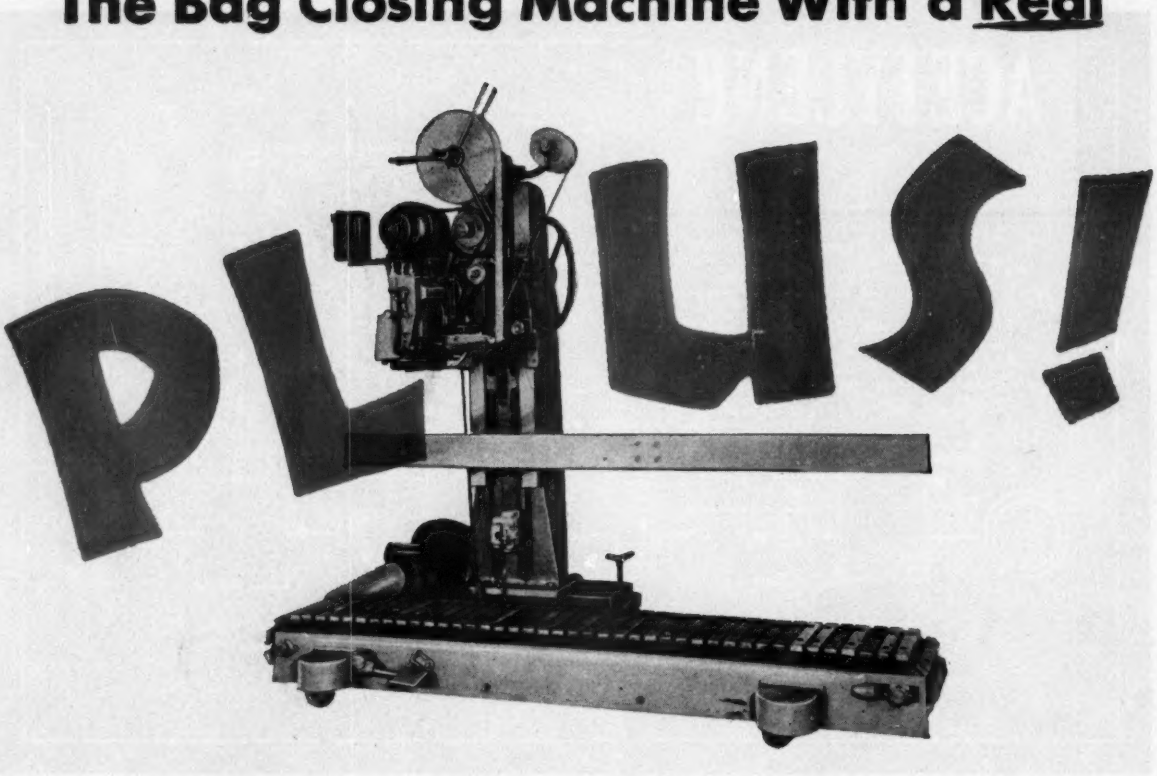
Chemical Processing Plants
Hydrogen Production Plants
Hydrogen Cyanide Plants
Synthesis Gas Plants
Plastics Materials Plants
Sulphur Plants
Acetylene Plants
Ammonium Nitrate Plants
Ammonia Plants
Catalysts and Activated Carbon

the **GIRDLER** Company

A DIVISION OF NATIONAL CYLINDER GAS COMPANY
LOUISVILLE 1, KENTUCKY

GAS PROCESSES DIVISION: New York, Tulsa, San Francisco
In Canada: Girdler Corporation of Canada Limited, Toronto, Ontario

The Bag Closing Machine With a Real



There's an extra PLUS built into every model ET BAGPAKER delivered . . . the PLUS of assured day-in, day-out top performance.

The Model ET ties in with your existing filling and weighing equipment...closes open-mouth, multiwall paper bags semi-automatically... gives you sift-free, stronger, more economical bag closures with the famous BAGPAK cushion stitch.

You can count on the model ET BAGPAKER to give you faster packaging and better product protection...at lower cost.

Model ET applies famous "Cushion-Stitch" over dry tape for sift-proof closure. Model E-1 applies "Cushion-Stitch" only, for use where sift-proofing is not essential.

Check these Economy and Efficiency Features:

- ✚ *Closes 15 filled bags a minute.*
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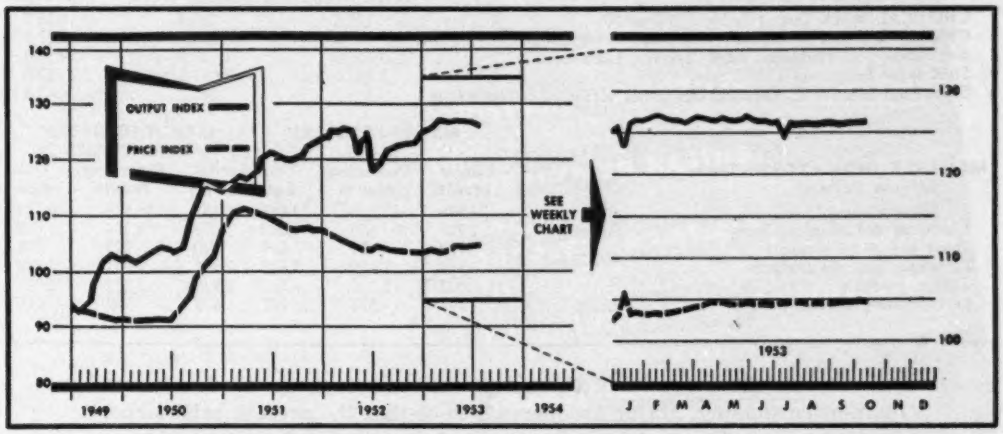

CW Index of Chemical Output—Basis: Total Man Hours Worked in Selected Chemical Industries
CW Price Index—Basis: Weekly Prices of Sixteen Selected Chemicals

MARKET LETTER

Most industrial chemical sellers this week agree business could be better, but producers, on the whole, feel that the current level of trading is nothing to fret about. The easing, in some quarters, is being labelled a "return to normalcy."

Not a few pessimists, however, describe that attitude as whistling in the dark; they aren't convinced that the market activity curve has yet hit the bottom of the expected dip. This despite hustling salesmen's efforts.

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It's true, though, that while wholesale cut-backs in production are a very remote possibility, the brake is being applied to some hitherto racing chemical outpourings.

Rate of soda ash output, for example, has been adjusted to meet a slackening demand. There's no shortage of stocks, of course, but producers are holding inventories within reasonable bounds for both light and dense ash.

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Caustic soda overflow, too, is being held to a minimum as makers strive to gear production schedules to customers' requirements. Some observers are saying the cutbacks—in some instances—may have been a bit too much; they envision a possible reaction on future chlorine availability.

At any rate, trade talk has it that chlorine in small cylinders is due for an early price hike. Reason: increased handling costs.

At the moment chlorine supply seems more than adequate to take care of a fair enough demand for most chemical uses. And it's likely the status will remain quo until now-absent insecticide manufacturers step back into the market. That eventuality may not be too far off, if export demand for DDT and BHC continues to improve.

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Incidentally, most DDT producers have by this week upped their domestic schedules to establish a generally-obtaining—and slim-profit—27¢/lb. (c.l.).

Not so long ago (CW Market Letter, Sept. 26), traders were trying to liquidate leftover stocks at 23¢.

MARKET LETTER

WEEKLY BUSINESS INDICATORS	Latest Week	Preceding Week	Year Ago
CHEMICAL WEEK Output Index (1947=100)	125.6	125.7	124.2
CHEMICAL WEEK Wholesale Price Index (1947=100)	105.2	105.1	102.3
Bituminous Coal Production (daily average, 1,000 tons)	1,470.0	1,520.0	1,810.0
Steel Ingot Production (1,000 tons)	2,057.0(est.)	2,081.0(act.)	2,212.0
Stock Price Index of 13 Chemical Companies (Standard & Poor's Corp.)	258.5	260.2	242.8

MONTHLY INDICATORS—Trade (Million Dollars)	MANUFACTURERS' SALES			MANUFACTURERS' INVENTORIES		
	Latest Month	Preceding Month	Year Ago	Latest Month	Preceding Month	Year Ago
All Manufacturing	24,876	25,398	23,663	46,438	46,195	43,224
Chemicals and allied products	1,722	1,665	1,602	3,251	3,207	3,022
Paper and allied products	787	789	699	930	927	973
Petroleum and coal products	2,289	2,190	2,109	2,988	2,938	2,788
Textile products	1,002	1,066	1,137	2,826	2,809	2,833
Leather and products	297	333	275	613	589	541

On the other hand there's no immediate prospect of any wood rosin-price shading. Major producers believe that the present brisk export demand will continue, at least for the next few weeks. Recent 15-20¢/cwt. hikes on all grades have apparently not affected overseas sales.

And while domestic gum rosin is undergoing a similar briskness, one glaring inconsistency is evident. Despite the hardening trend consumers here are not scrambling for thinner supplies, are, in fact, keeping inventories at a minimum.

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Last week's 1¢/lb. cut in West Coast pentaerythritol prices (to 36¢ in c.l.) can't be attributed to any market weakening. The reduction, aver producers, represents a savings in from-plant freight rates, which are being passed on to the customers.

Demand for PE is generally good, and prices in the East—for the nonce—are firmly pegged.

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That's not true in the definitely softening ethyl alcohol market. Although major makers have been trying to maintain prices, pressures—from French material and increased U.S. production—late last week proved to much for the propping. Most producers will officially post schedules acknowledging the recent wave of tank car price concessions.

The reductions amount to as much as 5¢/gal. in tanks, with drum quantities to be pegged some 2¢-4¢/gal. under previously established tags.

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One pricing puzzler in the polyethylene picture is to be answered this week. Du Pont will notify long-anxious customers (CW Market Letter, Nov. 14), that lower prices on most widely used grades of its new polyethylene resins—Alathon 10—will go into effect December 1.

The reduction follows Bakelite's recent 3¢/lb. cut, but still pegs Du Pont's product at a nickel higher. Its salesmen, however, are plugging the "superior" molding and extruding properties of the new material, stressing economy in usage.

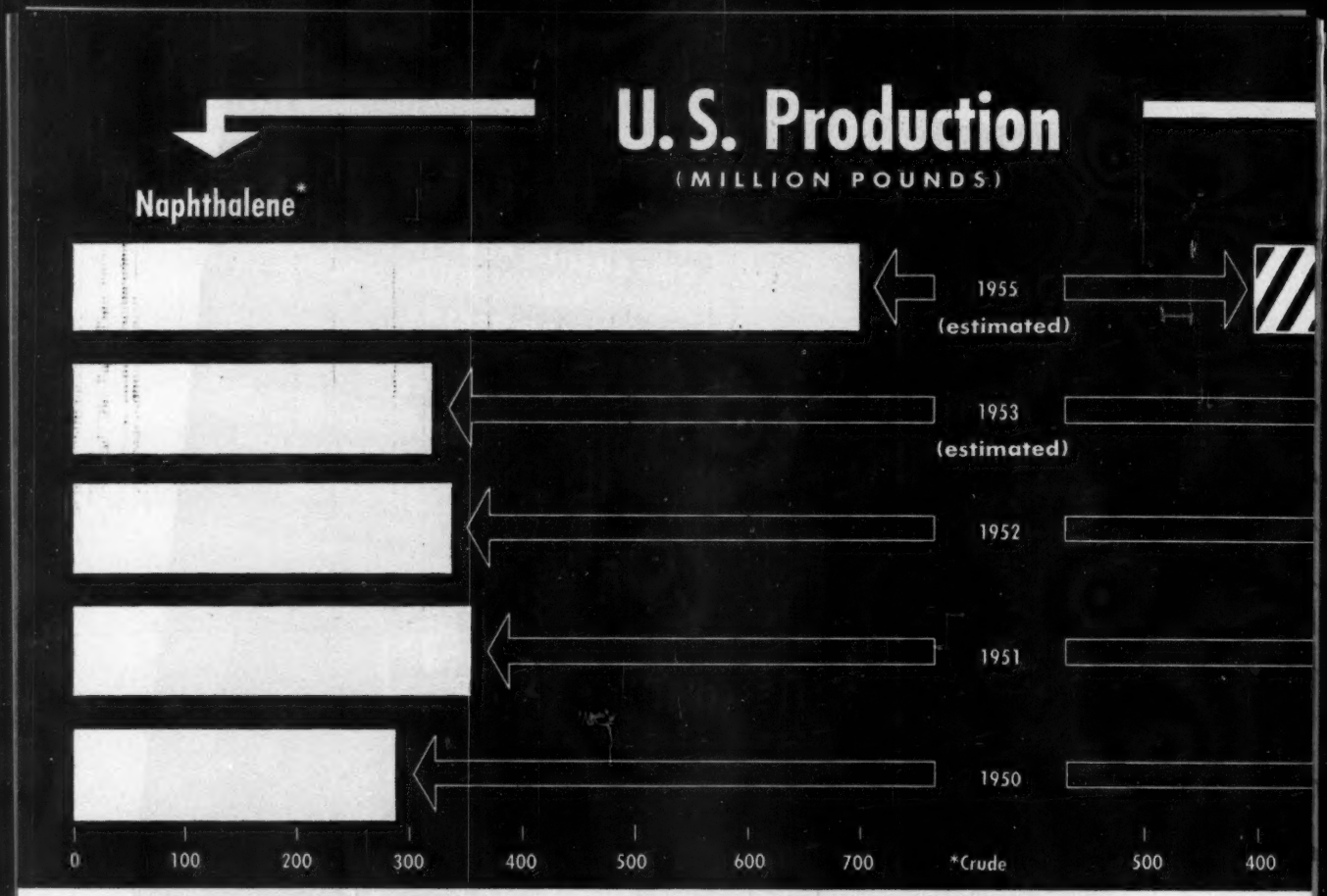
The 46¢/lb. tag brings the whole polyethylene price scale down. Bakelite shaved its schedule a couple of weeks ago—for the third time (CW Market Letter, Nov. 7). And this is Du Pont's first major price cut.

SELECTED CHEMICAL MARKET PRICE CHANGES—Week Ending November 16, 1953

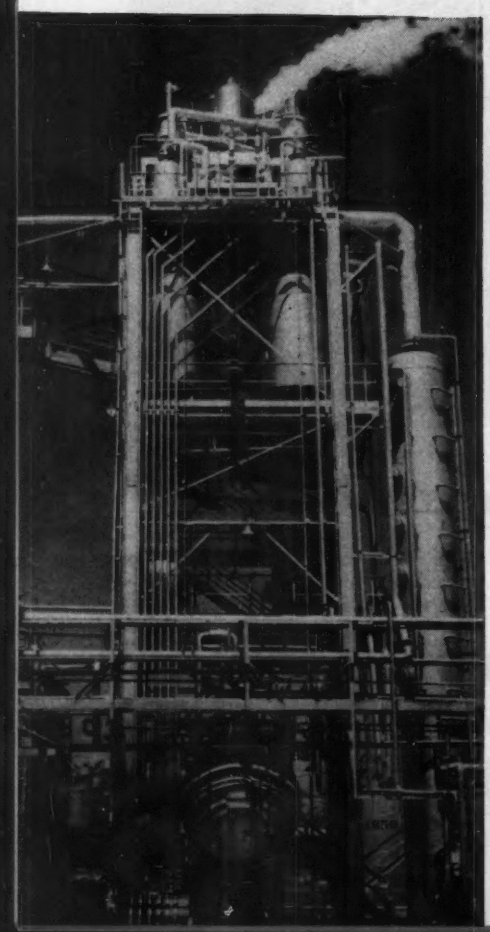
DOWN

	Change	New Price		Change	New Price
Ethyl alcohol, prop. sol., tks., gal.	$ .05	$ .46	Polyethylene (Alathon 10), most grades	$ .03	$ .46
Ethyl alcohol, SD2B, drms., c.l., dlvd. gal.	.04	.57	Argentine casein, acid.-precip., 100 bg. lots, duty paid	.01	.2075

All prices per pound unless quantity is stated.



NAPHTHALENE OUTPUT: Phthalic push-pull, soon due to click.



PA STILLS: From ortho-xylene, an uncertain promise.

Geared for a Gradual Rise

Naphthalene, always nip and tuck, has been pressured into long supply by high imports and domestic phthalic tie-up.

Undaunted, producers push expansion as widening phthalic outlets loom just ahead, promise that surplus will be quickly soaked up.

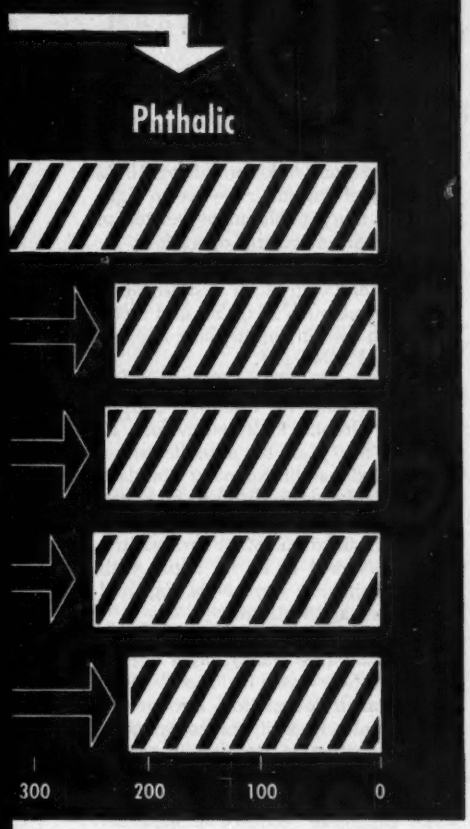
And the new naphthalene trickle from coal hydrogenation takes on added significance in the light of coking and import limitations.

Is naphthalene in oversupply? From coke-oven and tar-still operators throughout the country comes a resounding yes. But merely tacking descriptive labels on commodities seldom tells the whole story—especially when the commodity is naphthalene and the label reads "long".

One trouble is naphthalene's close tie-in with so many other variables. For instance, while it may be a moot question whether foreign imports of naphthalene — now running about 100 million lbs./year—will be a significant factor in any changing of domestic prices, it's more than likely that tag altering will be influenced by the market status of naphthalene-consuming phthalic anhydride. And though consensus on phthalic outlook is bright for the future, a truer index of the naphthalene pattern requires that the past as well be taken into account.

Blessing or Blight: Over the years, domestic naphthalene supply has skipped along, generally on the short side, but always near the balance line. Observers saw cause for concern only when war spotlighted the need for gap-filling imports.

And now the sometimes-vital, seldom-controllable imports, coupled with the recently ended strike at American Cyanamid's Bridgeville (Pa.)



phthalic anhydride plant,* have flash-flooded the naphthalene market with a rare instance of oversupply. Somewhat surprised, many domestic producers were nevertheless undaunted, gathered their wits, figured naphthalene demand for a rapid resurgence and pushed on with their expansion plans.

Imports, then, can and do raise hob with the domestic naphthalene market. Realizing this, Defense Production Authority, setting its sights on U.S. self-sufficiency, figured imports at approximately 25% of domestic requirements and calculated its 1955 target at 564 million lbs./year. Of the 238 million lbs./year additional capacity then needed, facilities for producing some 227 million lbs./year are now already complete, in progress or planned. Substantially, say Washington officials, the certificate book is closed.

Achievement of self-sufficiency, however, still leaves unanswered the

* One of the largest naphthalene-for-phthalic consumers, strike-bound for six months, went on full-scale operation only last week. Results: an estimated 30 million lbs. of naphthalene left uncalled for in 1953.

problem of an approximate 3¢/lb. price differential favoring the approximately 100 million lbs.—92 million in 1952, estimated at 96 million in 1953—of naphthalene hitting U.S. seaports annually. Some producers are wont to discount the price spread as negligible because of increased handling costs. Others, however, feel that price is an important factor, must be accounted for in any future planning. Their reasoning: in times of sufficiency, as now, the foreign crude† will seem more attractive to some customers, leaving domestic output to gather dust in surplus sheds.

Through the Looking Glass: Eyeing this same near-100 million lbs./year figure from the point of growing potential demand, it takes on a different light, represents a likely upper limit of naphthalene imports to be counted on in times of shortage.

At one time, upwards of 30 million lbs./year of the crude could be credited to imports from the Balkans, Czechoslovakia and Poland. Today, this flow is channeled behind the Iron Curtain. Other European sources are also being curtailed as those countries start producing phthalic anhydride or other naphthalene-consuming chemicals for themselves.

Refrigeration or Hydrogenation: Too, the DPA (now Office of Defense Mobilization) 564 million lbs./year target likewise represents an upper limit—that of total naphthalene available from coke-oven tars.

Current expansion is counting on heretofore-too-costly refrigeration and finer distillation for further processing of hard-to-extract naphthalene fractions formerly left in the tars. But even with more complete extraction, output couldn't far overreach the target. Result: net potential of 664 million lbs./year—564 million lbs., U.S. production; 100 million lbs., imports. But another government-sponsored crystal-gazing group—the Paley Commission—says it's not enough, pegs 1955 needs at 700 million lbs./year, 1975's at 3,120 million lbs./year.

Discounting any marked increase in coking operations, which seems unlikely in lieu of its close tie-in with the evenly keeled steel industry, coal hydrogenation thus takes on top-rank importance, underscores the significance of Union Carbide's recent marketing of its first coal-hydrogenation naphthalene (*CW, Nov. 7*).

Available only in small quantities from Carbide's outsized—300 tons/day—pilot hydrogenation unit at Institute (W.Va.), this premium-grade (80.05 degree) naphthalene will sell for premium prices—at least until it hits commercial-scale outflow about mid-'54. Carbide's goal: a 1,000 tons/day hydrogenation works producing 10-32 tons/day of naphthalene—five to eight times as much naphthalene per ton of coal as current coking operations.

Substitute or Surplus: Another hard-to-pin-down factor is substitution of chemicals such as ortho- and meta-xylene in certain naphthalene applications (*CW, Oct. 17*).

An estimated 18 million lbs/year of ortho-xylene, for example, is oxidized by Oronite to its equivalent 12 million lbs./year of phthalic anhydride. And parent company Standard Oil of California is slated to go ahead with its 50 million lbs./year isophthalic acid installation. Meta-derived, the acid is averred to be on a par with phthalic in its surface-coating and plasticizer applications.

Just how much of the total naphthaline load (*see chart*), other chemicals can take over in "short" times bestirs much speculation, however.

And unlikely as it may seem now, should a situation develop in which demand continued to outstrip supply, price would undoubtedly warrant the more expensive recovery of naphthalene from certain petroleum streams.

Optimistic or Overcast: Taken all in all, outlook for naphthalene is by far more buoyant than baleful. Based on analyses of the past and future, one studied "guesstimate" pegs 1955 crude consumption at a 650-700-million-lb. high—an estimated 300-million-lb. jump over 1950's 399 million lbs./year.

Phthalic and maleic alkyd resins are generally spotted as gradual but steady risers, with dialkyl phthalate plasticizers proving a possible sleeper. Recent use of diethyl phthalate as a rocket fuel plasticizer, for instance, could pave the way for a military-spawned naphthalene demand far in excess of any end use yet envisioned.

And while a 500-million-lb. lion's share is slated for phthalic, 150-200 million lbs. may funnel down into refined naphthalene—for beta-naphthol dyes, etc.

Refined Naphthalene End Uses 1955 (est.)

Dyes and intermediates	70%
Moth repellents	15%
Miscellaneous (tanning agents, surfactants, etc.)	15%

This same happy tenor seems to be reflected, with but few exceptions, by growth throughout the industry.

† Imports of refined naphthalene are negligible, amounted to only 0.5 million lbs. in 1952.

Among top naphthalene producers, Barrett, Koppers and U.S. Steel either have recently completed or are currently undergoing expansions. From the Midwest, on the other hand, comes one important voice raised in dissent. Weak or complete lack of demand, declares Reilly Tar & Chemical, coupled with high imports, have hurt: naphthalene operations have been curtailed for six months.

And from the East, a similar response is echoed by another large naphthalene producer, Pittsburgh Coke & Chemical. Declares PC&C: "While the long-range outlook is encouraging, right now it's flowing out of our ears. Presently, there are no plans for expansion."

However, while Reilly accuses high imports as the culprit, the Pittsburgh firm figures the blame lies principally with softened markets here at home. Although melting point of the foreign crude is good, it generally leaves more of a residue upon distillation, involves a greater amount of work in processing—enough so that Pittsburgh Coke feels its 3¢/lb. price advantage is easily offset.

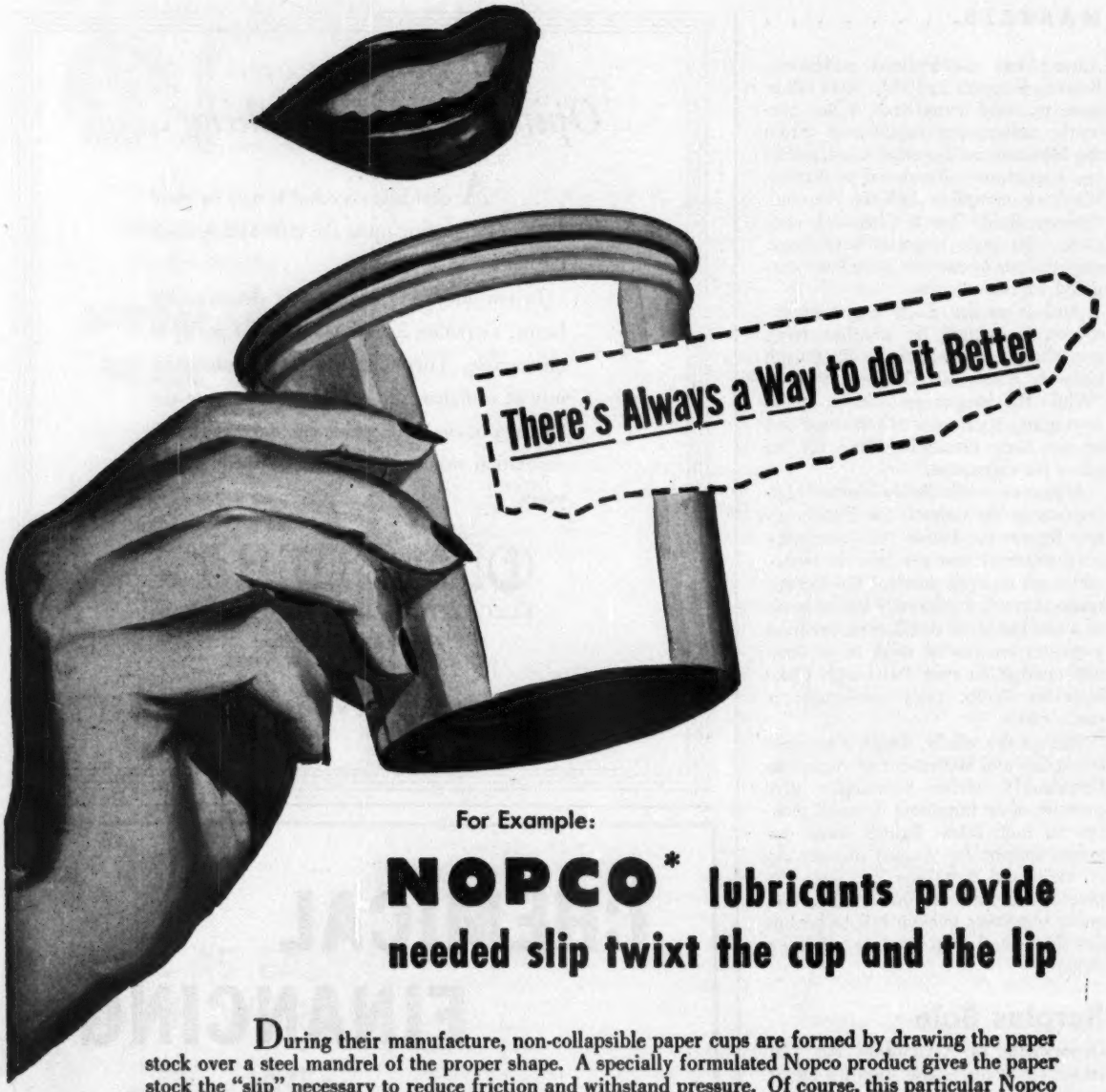
But on the whole, lowered summer stockpiles and settlement of American Cyanamid's strike seemingly give promise of an imminent demand pick-up. In fact, latest figures show domestic output for August already up an estimated 2 million lbs. over the previous month's 24 million lbs., and many observers believe this to be but the first small step in a lengthening stride.

Surplus Sale

Department of Agriculture has just added soybeans to this month's list of products available from the Commodity Credit Corp.

Among other commodities: crude and refined cottonseed oil, olive oil, peanuts, flaxseed, nonfat dry milk solids. They will be quoted to prospective domestic buyers at October's going prices. Foreign customers, on the other hand, will likely get a break on all peanut, refined and crude cottonseed, olive and raw linseed oils tagged for export. Soybeans headed for crushing oils, though, will be pegged at current market price for domestic and foreign trade alike, while raw linseed oil will carry its current domestic quotation through May of next year.

And, by the same token, cottonseed meal, offered at CCC-determined market price, will be propped at not-less-than $54.50/short ton (Valley basis) with area quality differentials.



For Example:

NOPCO* lubricants provide needed slip twixt the cup and the lip

During their manufacture, non-collapsible paper cups are formed by drawing the paper stock over a steel mandrel of the proper shape. A specially formulated Nopco product gives the paper stock the "slip" necessary to reduce friction and withstand pressure. Of course, this particular Nopco lubricant must be odor-free and non-toxic.

The applications of other Nopco lubricants are varied and numerous. For wet drawing of non-ferrous wire, rod and tube, a Nopco product doubles the effective life of the lubricating bath, cuts drawing costs. In textiles, thread breakage in sewing operations is minimized, and yarns are lubricated to facilitate processing and eliminate static electricity. The tanning industry lubricates leather with other Nopco chemicals to impart desired softness, and greater tensile strength.

Perhaps we can help you "do it better." Why not see if your own process can be helped, your product improved or costs shaved by the application of a Nopco product. *Our* laboratories and technical service are *yours* to help you make present products better, or aid in the development and manufacture of new products.

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CHEMICAL COMPANY (Dept. CW) Harrison, N. J.

Branches: Boston • Chicago • Cedartown, Ga. • Richmond, Calif.

BLEACHMAKER SAGE: For heavy duty or light, powder's preferred.

One for the Wash

This week's the kick-off for powder bleaches based on dichlorodimethylhydantoin. One has appeared in Eastern markets already.

The hydantoin bleaches could give the liquid hypochlorite bleaches a real run for the money. Even the big soapers are showing interest.

Following one first with another* Sage Laboratories, Inc. (New York), hit the supermarket shelves last week with a brand-new type of dry bleach, based on dichlorodimethylhydantoin (DDH). But Sage Dry Bleach is more than a score for an alert specialty firm. It blazes the way for what could be a major change in bleach buying habits, since the new product is a heavy-duty bleach—designed for the same job that time-honored hypochlorites have had.

The product looks like one of the hottest bleach items in years—it could be a natural for major soap companies, and it's no secret that some of the big outfits are showing powerful interest.

Anticipating a substantial demand for DDH, which it calls Halane, the supplier, Wyandotte Chemicals, will lop 15¢/ lb., off its price come December, putting carload prices at 65¢/lb., lcl price at 70¢/lb. That's still considerably above sodium hypochlorite, but not too much, by a long shot, to rule it off the home market.

Essentially, DDH is a hypochlorite bleach. It forms the hypochlorite ion in water. The hydantoin isn't completely ionized—it's an equilibrium reaction, and as the hypochlorite is used up for oxidation purposes, the reaction moves to the right.

The interest of Sage and the big soapers is most encouraging to Wyandotte and Glyco Products Co., Inc. (Brooklyn), whose joint venture Halane is. Neither firm has any intention of making and selling its own home bleach, but directly and indirectly, both are pushing Halane hard.

Kitchen-Door Selling: Sage's entry, Dry Bleach, was neatly timed† with the National Home Laundry Conference in New York—an occasion that benefited from the talk by Wyandotte's Carl Pacifico. His speech served to introduce DDH to editors of women's magazines and manufacturers of laundry machines, supplies and equipment.

Pacifico emphasized that Wyandotte decided to market Halane only after it had evaluated a number of potential bleaches for the Dept. of Defense. The firm then figured that DDH had good commercial possibilities, and put itself in a marketing position. Dichlorodimethylhydantoin is by no means a rarity—it has been produced for a number of years, is a fairly common industrial sanitizer, finds at least one important military use.

The advantages Wyandotte cites for Halane seem pretty impressive. Most of them revolve about the compound's being a dry material that is almost as effective a bleach as the liquids.

As charted by Wyandotte, Halane stacks up against other currently available bleaches like this: it's a powder, with high bleaching power and with comparatively little effect on the tensile strength of cottons (and other fibers which require a strong bleach).

A white powder, it can be spray-dried in formulation, can be packed in heavy-duty cardboard boxes. Sage is introducing its product in an 11-oz. glass bottle (*see cut*), a packaging dictated by the demands of supermarkets into which his products are funneled.

Muscular Bleach: Wyandotte figures the average packager will sell DDH bleaches with about an 8% "available chlorine" strength – the strength of presently offered dry calcium hypochlorite bleaches. In such form, mixed with polyphosphates, etc., roughly 1-1½ ounces will be needed per wash. That's slightly less than powdered hypochlorite or sodium perborate bleaches on the market, and far less than the cup (eight ounces) of liquid sodium hypochlorite suggested. It can compete with present products pricewise—Sage tags its 11-oz. bottle at 29¢, and cost per use is only a cent or so above liquid hypochlorites.

Although perborate bleaches have made a definite impact on the consumer market, they don't yet have the

*Sage unwrapped the perborate powder bleaches with its Sage Safety Bleach (*CW, Apr. 14, '51*).

†Supply difficulties, which Wyandotte assumes are over, held up Sage's production for several weeks.

popularity that sodium hypochlorite has. Some consumer surveys indicate that roughly 10% of housewives use the powders (in some cities the usage is as high as 33%), compared with a liquid bleach usage that is 85% or better.

It's Wyandotte's feeling that DDH may be the powder that can really fix dry bleaches in the housewives' preference. The DDH can apparently do any job hypochlorites can, including removal of hard stains, with less loss of effectiveness on storage than either powder or liquid hypochlorites.

It needn't be dissolved in water before use, and there's only slight hazard of spontaneous decomposition alone or when contaminated with organics. But like the hypochlorite bleaches, it can yellow some resin-finished rayons.

Many of these advantages indicate that there might well be the same uses for DDH in disinfectant applications as there are for hypochlorites. Currently, for industrial sanitation, Wyandotte is selling Antibac, made with its Halane. Sage is labeling its product as an effective bathroom and kitchen disinfectant.

Powder Duo: It is likely that many bleachers, should they decide to add Halane to their lines, will not set aside perborate bleaches. These are still the only ones recommended for use with silks and woolens—performance on synthetics of Halane is still undergoing research.

Sage has said it will keep and continue to push Safety Bleach (perborate)—which is now spray-dried and has an eye-catching mild blue color. As Sage figures it, heavy-duty dry bleach made with DDH puts another sure-selling item in a list of chain-store-sold specialties.

Concerning compatibility with optical bleaches, Wyandotte says there are some whiteners with which its Halane can be used in laundry water, but chances are it will not be packaged in the same formulation with detergents containing whiteners.

Right now, consumers in only a few East Coast areas can walk into a store and pick up a dichlorodimethylhydantoin bleach. But should the big soap companies latch onto the compounds as their interest indicates they may, there's bound to be the sort of promotion that outshines anything seen in bleach advertising before.

Canned Carnauba

Broadening its interest in the booming auto specialties business (*CW, Sept. 5*), Gulf Oil Corp. is introducing a brand-new liquid car polish this week.

The new product, Gulf Lustertone

Your Honeywell instrument service starts here...

THOROUGH TRAINING is the foundation of Honeywell instrument service. In classrooms and in the Honeywell factories, hand-picked men first are schooled in both the theory and practical art of keeping good instruments in the best condition.

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MINNEAPOLIS **Honeywell**

BROWN INSTRUMENTS

First in Controls

SPECIALTIES. . . . . .

Liquid CarWax, is the first liquid wax that Gulf has ever offered, supplements paste waxes the firm has previously sold. It's touted to be pure carnauba wax in a petroleum naphtha solvent—and since no softening vegetable waxes are used, an extremely hard, durable finish is said to result.

Gulf is having the product contract-manufactured in Dayton, O., and is selling Lustertone only through its own dealer outlets. Currently, only pint cans are sold, retailing at 89¢.

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Water Booklet: Cochrane Corp. (Philadelphia) has issued a 39-page booklet on treating water by demineralization. Titled "Handbook on Demineralizing," it explains the principles of ion exchange and gives estimates of operation cost of demineralizing systems.

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Michigan Plant: Farm Bureau Service, Inc., Lansing, Mich., is building a granulation plant at Kalamazoo, Mich. The John J. Harte Co., Atlanta, exclusive licensing agents for the Davison granulation process, is handling the design and construction management. The plant is expected to have a capacity of 30,000 tons/year, will be completed by January.

•

Exchange Offer: The Medical Dept. of Wyeth Laboratories is back of an exchange offer the firm is putting into effect. Wyeth urges purchasers of its SMA liquid infant food to exchange for a new fortified formulation all cans that don't list pyridoxine hydrochloride (vitamin B_6) in the contents.

The firm discovered that deficiency of vitamin B_6 in infant nutrition may produce convulsive symptoms in a small percentage of babies, boosted the formulation of its SMA, and authorized all retailers to make the swap.

•

New Products: Here are some of the latest:

• Adhesive Products Co.—A non-skid protective coating, called Griptex, for conveyor belts. It's an oil-resistant liquid synthetic rubber coating, can be applied by brush or spray.

• Nuodex Products Co. (Elizabeth, N.J.)—Nuogel, A.O., an aluminum octoate for use in controlled bodying of pigment vehicle systems in paints and inks, and in paint and varnish removers.

• Raybo Chemical Co. (Huntington, W.Va.)—Raybo 85-Rustib, a rust-retarding additive applicable to coating materials.

• Witco Chemical Co.—two naphthenate-type products, odorless cobalt and odorless lead driers. They can be used in odorless formulations, the company says, without imparting odor to finished products.

• Alpha Corp. (Greenwich, Conn.)—Molykote Type BR2, a multipurpose extreme-pressure lubricating grease for highly loaded ball and roller bearings as well as for sliding friction surfaces. The compound is an oxidation-inhibited lithium-based product fortified with a molybdenum disulphide powder.

• Meyercord Co. (Chicago)—two specialized decals for the aircraft industry, solvent-resistant E-51 transfer and heat-resistant "HR" transfer.

• Manufacturing Improvement Corp. (Cambridge, Mass.)—Micate, a dry tall-oil soap intended as an emulsifier in asphalt emulsions and coal-tar disinfectants.

• General Electric's Chemical Div.—two phenolics, 75120 and 75121 Methylon resins. Besides being film-forming, they produce coatings that are resistant to corrosive and oxidizing agents.

• Abbott Labs.—Quertine, the active ingredient of rutin, to prevent hemorrhage in hypertensive patients.

• American Potash & Chemical Corp. — twin weed killers, Tronabor and Tumble-Weed-25. Tronabor contains 13.7% boron and 44% boric oxalate, is nonpoisonous, nonflammable, noncorrosive to iron or steel. Tumble-Weed-25 is 25% sodium chlorate and a minimum of 72% soluble borates plus a wetting and spreading agent, is not a fire hazard and is relatively nonpoisonous.

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Monsanto Additions: Monsanto Chemical Co. now produces the following:

• Stymer R, a w. p size made for new synthetic filaments. It's manufactured by the company's Merrimac Div.

• HB-20, a partially hydrogenated alkyl-aryl hydrocarbon. A product of the Phosphate Div., it is employed as an extender-type plasticizer for vinyls.

• Resinox 3700, Lauxite UF-101A, Lauxite UF-112, all from the Plastics Div., Resinox 3700 is a thermo-setting molding material that combines improved arc resistance and dimensional stability. Lauxite UF-101A and Lauxite UF-112 are liquid urea-resin adhesives with high solids content; the former is 60% solids, the latter, 65%.

• Santochlor, the company para-dichlorobenzene, in a new size, No. 814. Slightly smaller and more uniform than No. 34, it's made for blocking.

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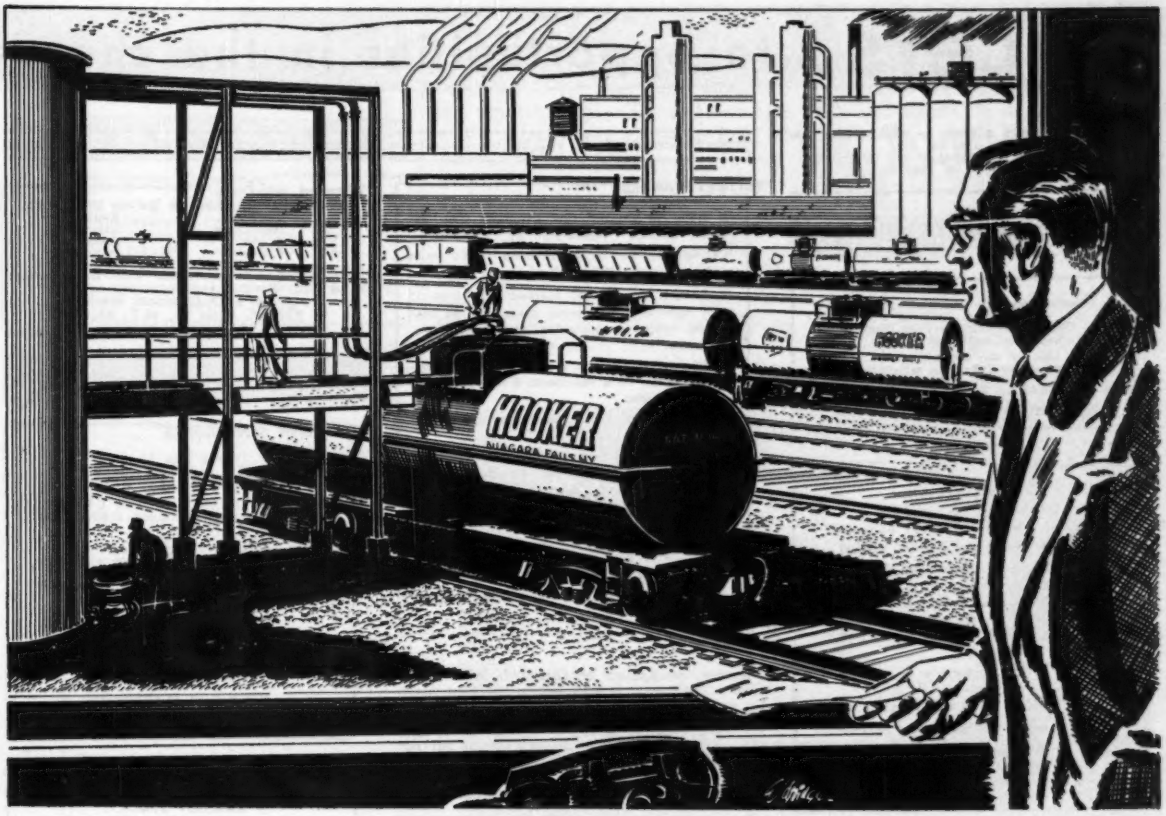
Black Leaf: Tobacco By-Products & Chemical Corp., formerly a wholly



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Positions Vacant

EDITORS WANTED

In order to expand and diversify the editorial service rendered by CHEMICAL WEEK, the editor is seeking three men with these specific backgrounds:

(1) Chemist or chemical engineer with 3 to 10 years' experience in chemical production. He must be well versed in processing, process techniques equipment.

(2) Chemist or chemical engineer, expert in commodity studies. Ideal experience: 3 to 5 years as a market researcher.

(3) Chemist with 3 to 5 years' experience in industrial research.

In addition to the foregoing, these men must (1) enjoy meeting people, (2) have the ability to dig out facts and interpret them intelligently, (3) be able to write lucidly.

Address your resume to:

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Engineer, mechanical or chemical. Well established fertilizer company in the Midwest needs the services of a man to plan the transition from old type manufacturing to modern and chemical equipment. Must have drive, initiative and imagination. Fertilizer experience helpful but not essential. Give age, education, experience and salary requirements. P-9780, Chemical Week.

Selling Opportunity Offered

For Better Sales in New England contact S. C. Kelley & Co., 24 Brook St., Stamford, Conn. Distributors of Chemical Specialties to established accounts in this area. We seek 1 or 2 more items of merit.

EQUIPMENT—used-surplus

For Sale

Ball Tube Mill, 3' x 6', Kennedy Van Saun Continuous, air-swept mills, with drive, feeder, fan and steel balls. Perry Equip. Corp., 1415 N. 6th, Phila. 22, Pa.

Centrifugal Extractor, 60" AT&M 316SS. Equipment Clearing House, 289-10th St., Bklyn, N.Y.

Filters: Shrivers, Sperry, Sweetland, etc. Perry Equipment, 1415 N. 6th St., Phila. 22, Pa.

Tanks, Aluminum, compartment—2,700 gal. & 3000 gal. Perry Equip. Corp., 1415 N. 6th St., Phila. 22, Pa.

Tanks, S/S—16,000 gal. to 2½ gal. Perry Equipment Corp., 1415 N. 6th St., Phila. 22, Pa.

Tanks, Steel, 15,000 gal. with 970' of 3" coil and 40 HP vertical agitator, Perry Equip. Corp., 1415 N. 6th St., Phila. 22, Pa.

Tanks: Five 2000 gallon glass lined, Pfaudler, brine jacketed insulated, horizontal milk storage tanks. Tanks have motor driven agitators, recording thermometers and 3" outlet valves. Tanks in use now, but available about January 15. Location: within 30 miles of Philadelphia. Inspection invited. Tanks are suitable for a variety of liquids. FS-9674, Chemical Week.

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SPECIALTIES . . . . . .

owned subsidiary of Virginia-Carolina Chemical Corp., has been dissolved as a separate corporation and absorbed as the Black Leaf Products Div. of the parent company.

•

Econometer: The Du Bois Co. (Cincinnati, O.) is now manufacturing a control instrument for use in metal washing. Dubbed the Econometer, it enables the operator to determine whether the proper amount of washing compound is being used.

Piscatory Problem: Crop dusting was blamed for the death of thousands of fish last month in a North Carolina creek. The creek involved was Simonds Creek in Pasquotank County and the dust was toxaphene. Spread by air two weeks earlier on cabbages, it washed into the stream during a heavy rain.

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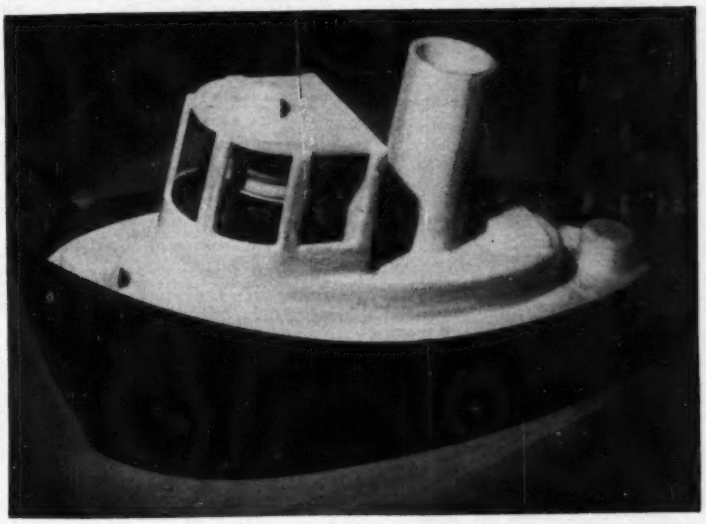
Boost for Booster: Alemite CD-2, Stewart-Warner's concentrated motor-oil additive, has been put into national



Bait For Young Skeptics

TO IMPROVE its public relations with children, Upjohn has designed a red and white showboat. The two halves of the plastic vessel, when fitted together enclose a Zymadrops sample bottle, dropper and leaflet on this vitamin elixir. Upjohn reports a shakedown cruise in one of its lab sinks reveals a "Zymadrop" to be highly seaworthy. The catch: they're not for sale but are gifts from physicians.

CHEMICAL WEEK • ADVERTISING INDEX

NOVEMBER 21, 1953

tracers SECTION
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SPECIALTIES . . . . .

distribution through garage and service-station outlets. The blend of antioxidants, corrosion inhibitor, varnish and gum remover has been sold by Alemite dealers for two years, but now the firm is broadening sales. The additive is similar to Texaco's motor detergent concentrate (*CW, July 4*).

•

Emulsion Tackifiers: American Resinous Chemicals Corp. (Peabody, Mass.) has two new resin emulsion tackifiers, Arccos 25 and 26. Their purpose: to produce fast-breaking (fast-setting) adhesives. Typical applications are side-lasting and sock-lining cements in the shoe industry, carton adhesives, and wherever instantaneous grab is required. Samples can be obtained on request.

•

Chemical Cloth: Mill River Automotive Products Corp. (Great Neck, N. Y.) is now selling a chemically treated cloth for cleaning cars. Called Swami Kloth, the 18 x 36-in cloth is impregnated with silicone, cleansing agents, protective waxes and water repellents, sells for $2.00.

•

New Filter Aid: Great Lakes Carbon Corp. (Morton Grove, Ill.) has developed a new type of carbon filter aid intended for filtration of alkaline solutions. Named Nerofil, it is claimed to possess the high porosity and permeability characteristic of diatomaceous silica. It differs from the silica in that it is alkaline-resistant.

•

No Clamps: General Electric Co.'s Chemical Div. now offers adhesives for bonding plastics to surfaces in the home. Developed by the Armstrong Cork Co. for G.E., the adhesives permit easy rolling with a linoleum roller, thus eliminating conventional bonding methods such as presses, clamps, and weights. Available in two types, type A is made for professional bonding of G-E Textolite plastic surfacing to wood, metal or composition surfaces; type B is designed for "do-it-yourself" use on wood surfaces.

•

Seam Bursting: Turco Products, Inc., Los Angeles, appears to be outgrowing its facilities, so it plans major expansion for next year. The firm will build a $1-million plant on a 30-acre North Wilmington, Calif., site for manufacturing, sales, administration.

•

Charter Field: Synthetic Fertilizers and Chemicals, Inc., has filed a certificate of incorporation with the Secretary of State's office at Dover, Del. Capital of the firm is listed at $50,000.

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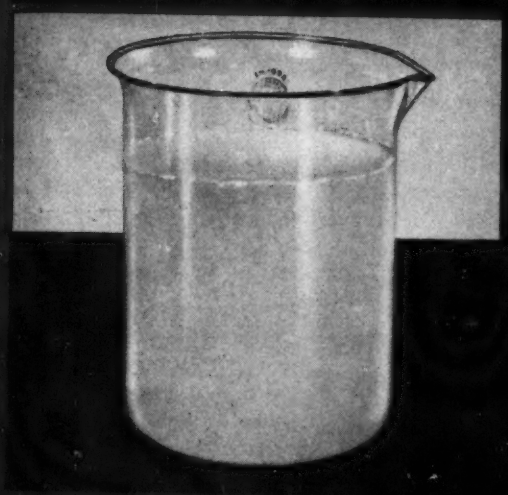
Water dispersible stearates are another example of Witco's continuing research in the development of new products, the improvement of existing ones.



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